(2)

UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT

PHOTO-SENSORS MAINTENANCE

AFSC 455X0A/B

AFPT 90-455-854

MAY 1990

OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT CENTER
AIR TRAINING COMMAND
RANDOLPH AFB, TEXAS 78150-5000

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HQ PACAF/TTGT	1		1	
HQ SAC/DPAT	3		3	
HQ SAC/LGM	3*		3*	
HQ SAC/TTGT	1		1	
HQ TAC/DPATJ	3		3	
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HQ TAC/TTGT	1		1	
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PREFACE

This report presents the results of an Air Force Occupational Survey of the Photo and Sensors Maintenance (AFSC 455X0A/B) career ladder. Authority for conducting occupational surveys is contained in AFR 35-2. Computer products used in this report are available for use by operations and training officials.

Lieutenant Kara Worthington developed the survey instrument, Ms Olga Velez provided computer programming support, and Mr Richard G. Ramos provided administrative support. Mr Daniel E. Dreher analyzed the data and wrote the final report. Lieutenant Colonel Charles D. Gorman, Chief, Airman Analysis Branch, Occupational Analysis Division, USAF Occupational Measurement Center, reviewed and approved this report for release.

A Training Requirements Analysis (TRA) is being accomplished in conjunction with this OSR. The TRA will provide a comprehensive data base to support anticipated changes in training for the career ladder. The TRA will contain three sections: a) System Overview - an overall perspective of the career ladder training; b) Task Analysis - detailed training decision data on technical tasks performed; and c) Training Requirements and Recommendations - suggestions of what should be taught, when, and where. Copies of the TRA may be obtained from USAF Occupational Measurement Center, Detachment 5, Lowry AFB Colorado 80230-5000.

Copies of this report are distributed to Air Staff sections and other interested training and management personnel. Additional copies may be requested from the Occupational Measurement Center, Attention: Chief, Occupational Analysis Division (OMY), Randolph AFB Texas 78150-5000.

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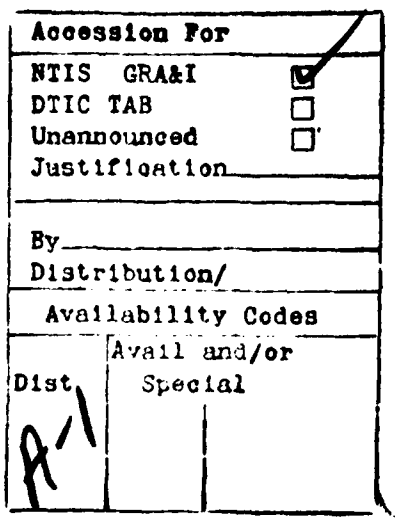

SUMMARY OF RESULTS

1. Survey Coverage: This report is based on data collected from 1,065 respondents constituting 73 percent of all assigned AFSC 455X0 personnel. There were 474 AFSC 455X0A, 587 AFSC 455X0B, and 4 AFSC 45599 personnel in the sample.

2. Career Ladder Structure: Survey data show quite a diversity of jobs in this career ladder. There are three types of jobs identified from survey data: Administrative and Supervisory, Instructor, and Maintenance. In addition, two jobs identified by survey data involve equipment no longer maintained by members of this career ladder.

3. Career Ladder Progression: This career ladder is typical in that 3- and 5-skill level members spend most of their job time performing technical tasks related to maintaining the various sensor equipment items. Seven-skill level members are first-line supervisors, performing a mixture of technical and supervisory tasks.

4. Specialty Descriptions: For the most part, AFR 39-1 Specialty Descriptions accurately describe jobs and tasks performed by AFSC 455X0 personnel. Recent changes in equipment maintained, however, will require some modifications of the Specialty Descriptions.

5. Training Analysis: Most of the Specialty Training Standards (STS) and Plans of Instruction (POI) are supported by survey data when reviewed using criteria set forth in AFR 8-13/ATC Supplement 1 and ATCR 52-22. There are a number of unsupported elements in the Electronics Principles STS for each shred that need to be reviewed by school personnel.

6. Job Satisfaction: Job satisfaction for respondents in the present study is somewhat lower than reported for members of comparative AFSCs surveyed in 1988. Overall satisfaction has remained fairly stable over the years. Members of most jobs report they find their job interesting, and feel their talents and training are used. Members in the Flightline Pave Tack and Strategic Camera Maintenance jobs, however, have the lowest satisfaction indicators.

7. Implications: Survey data show the career ladder has remained essentially the same, even with recent equipment changes. Members progress typically through the specialty. Current AFR 39-1 Specialty Descriptions will need minor changes to reflect recent equipment changes.

OCCUPATIONAL SURVEY REPORT
PHOTO AND SENSORS MAINTENANCE CAREER LADDER
(AFSC 455X0)

INTRODUCTION

This is a report of an occupational survey of the Photo and Sensors Maintenance (AFSC 455X0) career ladder completed by the USAF Occupational Measurement Center (OMC) in March 1990. This career ladder was restructured in 1987 under Rivet Workforce when AFSCs 322X2A and 322X2B (Avionic Sensor Systems) were combined with AFSC 302X1 (Airborne Meteorological/Atmospheric Research Equipment) to become AFSC 455X0A (Tactical/Reconnaissance Electronic Sensors) and AFSCs 322X2A and 322X2C (Avionic Sensor Systems) were combined with AFSC 404X1 (Aerospace Photographic Systems) to become AFSC 455X0B (Reconnaissance/Electro-optical Sensors). AFSCs 322X2A/B/C were surveyed in March 1980 and AFSCs 322X2A/C and 404X1 in July 1984. The present study was requested by HQ USAF/LEYM to provide survey data following the Rivet Workforce merger.

Background

The AFR 39-1 Specialty Descriptions state that AFSC 455X0 personnel inspect, troubleshoot, repair, overhaul, modify, and install avionic sensor system equipment. A-shred personnel are involved with tactical real-time display and reconnaissance electronic sensors, such as lasers, low light television, passive closed circuit television, forward-looking infrared and side-looking radar, cosmic-ray detectors, and radiation detectors. B-shred personnel are involved with electronic and electro-optical sensors, such as infrared detectors, data display systems, optical cameras, videotape recorders, and closed-circuit television systems.

Members enter the career ladder by attending either the 23-week A-shred course or the 27-week B-shred course conducted at Lowry AFB CO. These courses provide background knowledge of electronics and sensor systems which prepare graduates for field training detachment (FTD) and certification courses on specific equipment items taught at bases of first assignment.

SURVEY METHODOLOGY

Data for this survey were collected using USAF Job Inventory AFPT 90-455-854 (April 1989). The Inventory Developer reviewed pertinent career ladder documents, the previous OSR and job inventory, and then prepared a tentative task list. The task list was validated through personal interviews with 77 subject-matter experts at the following bases:

BASE	REASON FOR VISIT
Lowry AFB CO	Technical school
Nellis AFB NV	Maintain PAVE PENNY and ground videotape recorders
George AFB CA	Maintain target identification system electro-optical (TISEO) and airborne videotape recorders
Bergstrom AFB TX	Maintain reconnaissance cameras
Beale AFB CA	Maintain side-looking radar
McClellan AFB CA	Maintain atmospheric research equipment
Hurlburt Fld FL	Maintain AAD-7 and PAVE LOW radar
Eglin AFB FL	Major testing site and maintain airborne videotape recorders

The final inventory contains 726 tasks grouped under 24 duty headings, standard background questions asking for DAFSC, organization of assignment, MAJCOM, duty title, TAFMS, time in career ladder, and additional questions asking respondents to indicate aircraft they work on, video or camera systems they maintain, sensor systems they maintain, and test or support equipment they use. School personnel will use responses to these questions to evaluate training and determine how AFSC 455X0 personnel are being used.

Survey Administration

From June through December 1989, Consolidated Base Personnel Offices at operational bases worldwide administered the surveys to AFSC 455X0 personnel selected from a computer-generated mailing list provided by the Air Force Human Resources Laboratory. Respondents were asked to complete the identification and biographical information section first, go through the booklet and mark all tasks they perform in their current job, and then go back and rate each task they marked on a 9-point scale reflecting the relative amount of time spent on each task. Time spent ratings range from 1 (indicating a very small amount of time spent) to 9 (indicating a very large amount of time spent).

The computer calculated the relative percent time spent on all tasks for each respondent by first totaling ratings on all tasks, dividing the rating for each task by this total, and multiplying by 100. The percent time spent ratings from all inventories were then combined and used with percent member performing values to describe various groups in the career ladder.

Survey Sample

The final sample includes responses from 474 AFSC 455X0A, 587 AFSC 455X0B, and 4 AFSC 45599 members. As shown in Tables 1 and 2, the MAJCOM and DAFSC representation in the sample is very close to that of the total AFSC 455X0 population.

Data Processing and Analysis

Once the job inventories are received from the field, the booklets are screened for completeness and accuracy and are optically scanned to create a complete case record for each respondent. Comprehensive Occupational Data Analysis Programs (CODAP) then create a job description for each respondent, as well as composite job descriptions for members of various demographic groups. These job descriptions are used for much of the occupational analysis.

Task Factor Administration

Personnel who make decisions about career ladder documents and training programs use task factor data (training emphasis (TE) and task difficulty (TD) ratings), as well as job descriptions. The survey process provides these data by asking selected E-6 and E-7 supervisors to complete either a TE or TD booklet. These booklets are processed separately from the job inventories, and TE and TD data, when applicable, are considered when analyzing other issues in the study.

Training Emphasis (TE). Training emphasis is defined as the amount of structured training that first-enlistment personnel need to perform tasks successfully. Structured training is defined as training provided by resident technical schools, FTDs, mobile training teams (MTT), formal OJT, or any other organized training method. Thirty-five experienced AFSC 455X0A supervisors and 30 experienced AFSC 455X0B supervisors rated the tasks in the inventory on a 10-point training emphasis scale ranging from 0 (no training required) to 9 (much structured training required). Because of the diversity of equipment maintained by members of the two shreds, only a few respondents were able to provide TE ratings on tasks related to maintaining specific equipment items. This resulted in very low individual and group reliability values. Therefore, TE ratings cannot be used in this study.

Task Difficulty (TD). Task difficulty is defined as an estimate of the length of time the average airman takes to learn how to perform each task listed in the inventory. Twenty-nine experienced AFSC 455X0A and 24 AFSC 455X0B supervisors rated the difficulty of the tasks in the inventory on a 9-point scale ranging from 1 (easy to learn) to 9 (very difficult to learn). Ratings are normally adjusted so tasks of average difficulty have a value of 5.0. Again, the diversity of the career ladder resulted in very few supervisors rating equipment-specific tasks and very low individual and group reliabilities. Like TE, TD data cannot be used in this study.

TABLE 1

MAJCOM REPRESENTATION IN SAMPLE

COMMAND	TOTAL		AFSC 455X0A		AFSC 55X0B	
	PERCENT OF ASSIGNED	PERCENT OF SAMPLE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
TAC	40%	38%	28%	23%	50%	51%
USAFE	15%	19%	14%	16%	17%	20%
MAC	13%	13%	23%	26%	4%	2%
PACAF	10%	10%	8%	9%	11%	11%
SAC	10%	10%	10%	11%	10%	10%
ATC	7%	5%	10%	8%	5%	3%
AFSC	3%	3%	4%	5%	1%	*%
AAC	1%	1%	*%	1%	1%	1%
OTHER	1%	1%	2%	*%	1%	*%

TOTAL ASSIGNED = 1,686
TOTAL ELIGIBLE = 1,405
TOTAL IN SAMPLE = 1,065
PERCENT OF ASSIGNED IN SAMPLE = 63%
PERCENT OF ELIGIBLE IN SAMPLE = 76%

TOTAL ASSIGNED = 772
TOTAL ELIGIBLE = 636
TOTAL IN SAMPLE = 474

TOTAL ASSIGNED = 914
TOTAL ELIGIBLE = 769
TOTAL IN SAMPLE = 587

* Less than 1 percent

TABLE 2

PAYGRADE DISTRIBUTION OF SAMPLE

PAYGRADE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
E-1 to E-3	24%	28%
E-4	34%	30%
E-5	22%	22%
E-6	11%	12%
E-7	8%	7%
E-8	*	*
E-9	*	0

* Less than 1 percent

SPECIALTY JOBS
(Career Ladder Structure)

The first step in the analysis process is to identify the structure of the career ladder in terms of jobs performed. CODAP assists by creating an individual job description for each respondent based on the tasks performed and relative amount of time spent on the tasks. The CODAP-automated job clustering program then compares all the individual job descriptions, locates the two descriptions with the most similar tasks and time spent ratings, and combines them to form a composite job description. In successive stages, new members are added to this initial group, or new groups are formed based on the similarity of tasks and time spent ratings. This process continues until all respondents have been included in a group.

Overview

Survey data show there are three general types of jobs in the career ladder: Administrative and Supervisory, Training, and Maintenance. Eight supervisory and administrative jobs are identified separately, as members perform a variety of nontechnical administrative and management types of tasks. The training job is performed by resident course instructors at Lowry AFB. There are also 10 separate maintenance jobs identified by the types of equipment and location maintained. In addition, survey data show there are essentially two jobs that are no longer part of the career ladder. One deals with maintaining the side-looking radar system on the SR-71, and the other involves maintaining atmospheric research equipment (now the responsibility of AFSC 99104 personnel). These last two jobs will not be discussed in the report. Percentages of members in the various jobs are represented in Figure 1. Slices of the pie shaded with lines represent jobs performed by A-shred personnel, slices with the dots represent B-shred jobs, while unshaded slices are jobs performed by both A-and B-shred personnel.

The time members of these jobs spend on duties is shown in Table 3, while selected background information on members of these jobs is presented in Table 4. The Stage (STG) or Group (GRP) number listed beside the title is a reference number assigned by CODAP, while the letter "N" refers to the number of respondents in the job.

I. ADMINISTRATIVE AND SUPERVISORY JOBS (STG021, N=155)

- A. Supply Job (STG108, N=7)
- B. Resource Advisor Job (STG069, N=10)
- C. Production Supervisor Job (STG116, N=6)
- D. Shift Supervisor Job (STG109, N=16)
- E. NCOIC Job (STG106, N=70)
- F. Training Development Job (STG181, N=6)
- G. Mobility NCO Job (STG098, N=6)
- H. Quality Control Job (STG099, N=9)

AFSC 455XO CAREER LADDER JOBS

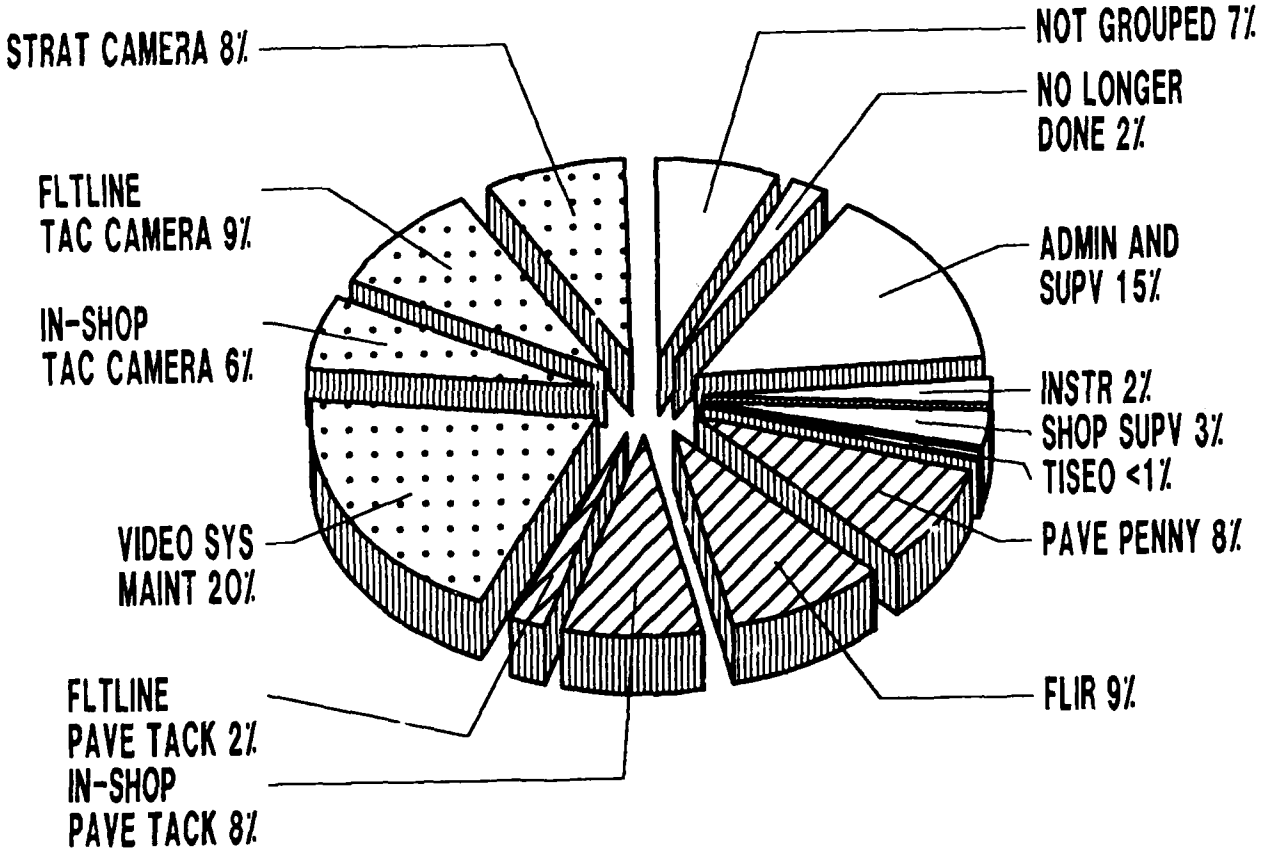

FIGURE 1

TABLE 3

DISTRIBUTION OF TIME SPENT ACROSS DUTIES BY MEMBERS OF CAREER LADDER JOBS
(RELATIVE PERCENT OF JOB TIME SPENT)

DUTIES	ADMIN SUPV (N=155)	INSTR (N=18)	SHOP SUPV (N=36)	TISEO MAINT (N=9)	PAVE PENNY (N=80)	FLIR MAINT (N=98)
A ORGANIZING AND PLANNING	17	3	7	1	2	2
B DIRECTING AND IMPLEMENTING	17	2	9	1	5	3
C INSPECTING AND EVALUATING	17	3	7	*	2	2
D TRAINING	8	55	4	*	1	2
E PERFORMING ADMINISTRATIVE FUNCTIONS	27	15	21	16	13	11
F PERFORMING GENERAL MAINTENANCE ON PHOTO-SENSOR SYSTEMS	10	6	35	59	45	58
G PERFORMING POWER PROCEDURES	1	2	4	6	4	7
H MAINTAINING PODS	*	*	1	0	2	*
I MAINTAINING PAVE TACK AN/AVQ-26 SYSTEMS	*	*	1	0	0	0
J MAINTAINING RADAR MAPPING SENSOR SYSTEMS	*	0	*	0	0	0
K MAINTAINING PAVE SPIKE AN/ASQ-153 SYSTEMS	0	*	*	0	0	0
L MAINTAINING LOW LIGHT LEVEL TELEVISION SYSTEMS	0	0	*	0	0	3
M MAINTAINING FORWARD LOOKING INFRARED RADAR SYSTEMS	*	*	*	0	0	11
N MAINTAINING SIDE LOOKING RADAR SYSTEMS	0	*	*	0	0	0
O MAINTAINING TARGET IDENTIFICATION SYSTEM ELECTRO-OPTICAL AN/ASX-1 SYSTEMS	*	*	*	14	0	0
P MAINTAINING PAVE PENNY AN/AAS-35 SYSTEMS	*	0	*	0	16	0
Q MAINTAINING ATMOSPHERIC RESEARCH EQUIPMENT	0	*	2	0	0	0
R MAINTAINING AAD-5 SYSTEMS	*	4	*	0	0	0
S MAINTAINING DATA DISPLAY SYSTEMS	*	2	*	0	0	*
T MAINTAINING CAMERA SYSTEMS	1	5	4	0	2	*
U MAINTAINING VIEWFINDER AND VIEWSIGHT SYSTEMS	*	1	*	0	0	*
V MAINTAINING VIDEO RECORDING AND COCKPIT TELEVISION SYSTEMS	*	*	1	0	7	1
W MAINTAINING MOUNT SYSTEMS	*	*	*	*	*	*
X PERFORMING CROSS-UTILIZATION TRAINING (CUT) TASKS	*	0	*	*	*	*

* Denotes less than 1 percent

TABLE 3 (CONTINUED)

DISTRIBUTION OF TIME SPENT ACROSS DUTIES BY MEMBERS OF CAREER LADDER JOBS
(RELATIVE PERCENT OF JOB TIME SPENT)

DUTIES	SHOP PAVE TACK (N=81)	LINE PAVE TACK (N=22)	VIDEO SYS MAINT (N=219)	SHOP TAC CAMERA (N=59)	LINE TAC CAMERA (N=98)	STRAT CAMERA (N=48)
A ORGANIZING AND PLANNING	1	3	2	*	1	1
B DIRECTING AND IMPLEMENTING	2	5	5	3	4	3
C INSPECTING AND EVALUATING	2	4	3	2	2	2
D TRAINING	1	2	2	1	1	1
E PERFORMING ADMINISTRATIVE FUNCTIONS	8	9	17	11	8	17
F PERFORMING GENERAL MAINTENANCE ON PHOTO-SENSOR SYSTEMS	49	39	38	37	33	55
G PERFORMING POWER PROCEDURES	6	9	6	4	6	4
H MAINTAINING PODS	7	5	*	0	*	0
I MAINTAINING PAVE TACK AN/AVQ-26 SYSTEMS	16	8	*	0	*	0
J MAINTAINING RADAR MAPPING SENSOR SYSTEMS	0	0	*	*	*	0
K MAINTAINING PAVE SPIKE AN/ASQ-153 SYSTEMS	0	*	0	0	0	0
L MAINTAINING LOW LIGHT LEVEL TELEVISION SYSTEMS	*	0	*	0	0	0
M MAINTAINING FORWARD LOOKING INFRARED RADAR SYSTEMS	*	0	*	*	0	0
N MAINTAINING SIDE LOOKING RADAR SYSTEMS	0	0	0	*	*	0
O MAINTAINING TARGET IDENTIFICATION SYSTEM ELECTRO-OPTICAL AN/ASX-1 SYSTEMS	3	0	*	0	0	0
P MAINTAINING PAVE PENNY AN/AAS-35 SYSTEMS	0	0	*	0	*	0
Q MAINTAINING ATMOSPHERIC RESEARCH EQUIPMENT	0	0	0	0	0	*
R MAINTAINING AAD-5 SYSTEMS	*	*	0	7	7	0
S MAINTAINING DATA DISPLAY SYSTEMS	*	0	*	4	3	*
T MAINTAINING CAMERA SYSTEMS	2	0	0	24	23	15
U MAINTAINING VIEWFINDER AND VIEWSIGHT SYSTEMS	*	0	*	1	4	2
V MAINTAINING VIDEO RECORDING AND COCKPIT TELEVISION SYSTEMS	1	*	21	4	*	*
W MAINTAINING MOUNT SYSTEMS	*	0	*	*	2	*
X PERFORMING CROSS-UTILIZATION TRAINING (CUT) TASKS	*	14	1	1	*	*

* Denotes less than 1 percent

TABLE 4

SELECTED BACKGROUND DATA ON MEMBERS IN CAREER LADDER JOBS

	ADMIN SUPV	INSTR	SHOP SUPV	TISEO MAINT	PAVE PENNY	FLIR MAINT
NUMBER IN GROUP	155	18	36	9	80	98
PERCENT OF SAMPLE	15%	2%	3%	*%	8%	9%
PERCENT IN CONUS	61%	100%	61%	100%	75%	74%
DAFSC DISTRIBUTION						
45530A	0	0	0	22%	13%	10%
45550A	8%	44%	22%	78%	54%	71%
45570A	35%	11%	25%	0	15%	13%
45530B	1%	0	0	0	1%	1%
45550B	5%	28%	19%	0	16%	4%
45570B	48%	17%	33%	0	1%	0
PAYGRADE DISTRIBUTION						
E-1 to E-4	4%	28%	22%	100%	72%	70%
E-5	27%	56%	25%	0	21%	21%
E-6	33%	17%	39%	0	6%	8%
E-7	35%	0	14%	0	0	0
E-8	1%	0	0	0	0	0
AVERAGE MONTHS TAFMS	171	104	143	37	61	65
AVERAGE NUMBER OF TASKS PERFORMED	64	30	197	58	105	121
PERCENT IN FIRST ENLISTMENT	2%	0	9%	88%	63%	59%
PERCENT SUPERVISING	70%	0	75%	0	37%	42%

* Denotes less than 1 percent

TABLE 4 (CONTINUED)

SELECTED BACKGROUND DATA FOR CAREER LADDER JOBS

	SHOP PAVE TACK	LINE PAVE TACK	VIDEO SYS MAINT	SHOP TACT CAMERA	LINE TACT CAMERA	STRAT CAMERA
NUMBER IN GROUP	81	22	219	59	98	48
PERCENT OF SAMPLE	8%	2%	21%	6%	9%	5%
PERCENT IN CONUS	31%	9%	57%	58%	70%	85%
DAFSC DISTRIBUTION						
45530A	25%	27%	1%	0	0	0
45550A	57%	32%	4%	0	0	0
45570A	15%	41%	0	0	0	0
45530B	0	0	26%	27%	33%	23%
45550B	4	0	55%	59%	45%	67%
45570B	0	0	15%	14%	22%	10%
PAYGRADE DISTRIBUTION						
E-1 to E-4	62%	51%	72%	76%	67%	83%
E-5	32%	27%	21%	19%	23%	15%
E-6	6%	18%	6%	5%	7%	2%
E-7	0	5%	1%	0	3%	0
AVERAGE TAFMS (MOS)	63	81	63	58	66	52
AVERAGE NUMBER OF TASKS PERFORMED	142	81	88	115	90	80
PERCENT IN FIRST ENLISTMENT	57%	46%	61%	59%	56%	69%
PERCENT SUPERVISING	38%	55%	35%	32%	37%	25%

II. RESIDENT COURSE INSTRUCTOR (GRP069, N=18)

III. SHOP SUPERVISOR (STG130, N=36)

IV. TISEO MAINTENANCE (STG172, N=9)

V. PAVE PENNY MAINTENANCE (STG228, N=80)

VI. FORWARD LOOKING INFRARED RADAR (FLIR) MAINTENANCE (STG132, N=98)

VII. IN-SHOP PAVE TACK MAINTENANCE (STG152, N=81)

VIII. FLIGHTLINE PAVE TACK MAINTENANCE (STG122, N=22)

IX. VIDEO SYSTEMS MAINTENANCE (GRP068, N=219)

X. IN-SHOP TACTICAL CAMERA MAINTENANCE (STG084, N=59)

XI. FLIGHTLINE TACTICAL CAMERA MAINTENANCE (STG140, N=98)

XII. STRATEGIC CAMERA MAINTENANCE (STG128, N=48)

XIII. JOBS NO LONGER PERFORMED IN CAREER LADDER

A. Side-Looking Radar Maintenance (STG103, N=30)
B. Atmospheric Research Equipment Maintenance (STG078, N=20)

A description of each job, except for the two no longer done, is presented below. Representative tasks performed by members with each job are listed in Appendix A.

I. ADMINISTRATIVE AND SUPERVISORY JOBS (STG021, N=155). One hundred and fifty-five respondents, or 15 percent of the sample, have these jobs. While members perform some maintenance tasks, they have a rather distinct administrative or supervisory role. Most are paygrades E-5 through E-7 and hold the 7-skill level. Overall, members with these jobs spend 27 percent of their time performing administrative functions, 17 percent directing and implementing, 17 percent inspecting and evaluating, and 10 percent performing general maintenance on photo-sensor systems. Each of the individual jobs will be discussed in some detail below.

I(A). Supply Job (STG108, N=7). Seven respondents indicated they perform an average of 31 tasks related to the supply function. Four hold the 5-skill level, three hold the 7-skill level, and they average 114 months TAFMS. AFSC 455X0 personnel with this supply job are distinguished by the time they spend performing the following tasks:

review data-automated supply listings
complete AF Forms 2005 (Issue/Turn in Request)
verify awaiting parts (AWP) listings
locate information in technical orders (TO)
conduct followup action on supply or work requests
annotate AF Forms 2413 (Supply Control Log)

I(B). Resource Advisor Job (STG069, N=10). Ten senior E-5 and E-6 respondents indicated they have this supply-related job. They average 166 months TAFMS, hold the 5- or 7-skill level, and are distinguished by the time they spend performing the following supply management types of tasks:

complete AF Forms 9 (Request for Purchase)
input data using computers
complete DD Forms 1348-6 (DOD Single Line Item Requisition System Document)
review daily document registers
complete AF Forms 601 (Equipment Action Request)
conduct followup action on supply or work requests

I(C). Production Supervisor Job (STG116, N=6). Six respondents indicated they have this job. All hold the 7-skill level and are the most senior members of the cluster, with an average of 214 months TAFMS. This is a somewhat limited job as members perform an average of only 33 tasks, but are distinguished by the time they spend on the following tasks:

coordinate system malfunctions with appropriate units
dispatch maintenance crews
coordinate accessibility of aircraft with crew chiefs or appropriate units
debrief aircrews
direct or participate in mobility exercises
complete AFTO Forms 781A (Maintenance Discrepancy and Work Document)

I(D). Shift Supervisor Job (STG109, N=16). Shift supervisors hold the 5- or 7-skill levels, are either an E-5 or E-6, and average 161 months TAFMS. While they do perform a few general maintenance tasks, they spend more time on the following administrative and supervisory tasks:

complete AFTO Forms 781A (Maintenance Discrepancy and Work Document)
supervise Reconnaissance/Electro-Optical Sensor Specialists (AFSC 45550B)

visually inspect egress systems for safety
write enlisted performance reports (EPR)
counsel personnel on military-related matters

I(E). NCOIC Job (STG106, N=70). Seventy respondents in the cluster indicated they are NCOICs. They hold either the 5- or 7- skill level, they are either E-6 or E-7, and average 195 months TAFMS. NCOICs have the broadest job in the cluster, as they perform an average of 89 tasks and spend most time on the following tasks:

interpret policies, directives, or procedures for personnel
evaluate personnel for compliance with performance standards
write EPRs
establish work priorities
review or endorse EPRs
plan self-inspections

I(F). Training Development Job (STG181, N=6). There are six respondents with the Training Development job. Most are at the school at Lowry AFB, average 132 months TAFMS, perform an average of 62 tasks, and are distinguished by the time spent on the following tasks:

develop resident course curriculum materials, such as plans of instruction (POI) or specialty training standards (STS)
evaluate training methods or techniques
determine training requirements
develop tests
maintain training records, charts, or graphs
administer tests

I(G). Mobility NCO Job (STG098, N=6). There is a small group of fairly senior AFSC 455X0 personnel who have the job of Mobility NCO. Half hold the 5-skill level and half hold the 7-skill level. Their job is somewhat restrictive, as they perform an average of 31 tasks and are distinguished by the time they spend on the following tasks:

schedule leaves or temporary duty assignments
direct or participate in mobility exercises
determine equipment requirements
determine personnel requirements
establish procedural guidelines, such as operating instructions (OI) or standard operating procedures (SOP)

I(H). Quality Control Job (STG099, N=9). Nine respondents indicated they have this rather limited Quality Control Job. Members average 120 months TAFMS, are E-5 and E-6, hold either the 5- or 7-skill level, and perform an average of only 27 tasks, including the following:

review quality assurance evaluations
annotate quality assurance evaluations
provide technical assistance for job-related matters
evaluate inspection reports or procedures
investigate accidents or incidents
evaluate suggestions

II. RESIDENT COURSE INSTRUCTOR (GRP069, N=18). A- and B-shred resident instructors assigned to the technical school at Lowry AFB make up the two jobs in this cluster. Most hold the 5-skill level, are paygrade E-4 and E-5, and average 105 months TAFMS. A-shred instructors indicate they perform an average of only 10 tasks, while B-shred instructors indicate they perform a mixture of instructor and maintenance tasks, for an average of 61 tasks. The basic job, however, includes the performance of the following common tasks:

conduct resident course classroom training
administer tests
score tests
develop tests
construct training aids, such as slides or charts
evaluate training progress of trainees

III. SHOP SUPERVISOR (STG130, N=36). The Shop Supervisor job is identified separately because of the mixture of technical and supervisory tasks members perform. Eight Shop Supervisors are DAFSC 45550A, 9 are DAFSC 45570A, 7 are DAFSC 45550B, and 12 are DAFSC 45570B. They have the broadest job of any group, as members perform an average of 197 tasks. What distinguished members of this supervisory job is the time they spend on the following tasks:

implement corrosion control programs
review TMDE certifications
complete requests for local fabrication of parts
maintain TOs or commercial publications
review TMDE listings
maintain files of maintenance records

IV. TISEO MAINTENANCE (STG172, N=9). Nine A-shred personnel assigned to Seymour Johnson AFB perform this job. Seven hold the 5-skill level, and the other two are 3-skill levels. They are the most junior group identified in the survey as they average 37 months TAFMS, 35 months in the career field, all are in paygrades E-2 through E-4, and eight of the nine are in their first

enlistment. These TISEO Equipment Maintenance personnel spend 59 percent of their duty time performing general maintenance functions and 16 percent performing administrative functions. They are distinguished from members of other jobs because they spend 14 percent of their duty time maintaining TISEO AN/ASX-1 systems, more time than members of any other job. The following are representative tasks performed by members with this job:

align or adjust TISEO SRUs
align or adjust converter stabilization generator groups (CSGG)
bench check TISEO systems
remove or replace TISEO SRUs
align or adjust video processors
perform waveform adjustments

V. PAVE PENNY MAINTENANCE (STG228, N=80). Survey data show there are 80 predominantly A-shred personnel that maintain the PAVE PENNY system. Fifty-four percent are DAFSC 45550A, they average 61 months TAFMS, and they have a rather broad job, as they perform an average of 105 tasks. They spend 45 percent of their duty time performing general maintenance functions, 13 percent on administrative functions, and are distinguished because they spend 16 percent of their time maintaining the PAVE PENNY AN/AAS-35 system, as shown by the representative tasks listed below:

upload or download PAVE PENNY pods
perform BIT on PAVE PENNY systems
operationally check PAVE PENNY systems on aircraft
bench check PAVE PENNY systems
assemble or disassemble PAVE PENNY pods
align or adjust adapter control detectors (ACD)
remove or replace ACDs

VI. FORWARD LOOKING INFRARED RADAR (FLIR) MAINTENANCE (STG132, N=98). FLIR Maintenance is predominantly an A-shred job, as 93 of the respondents with the job hold DAFSC 45550A. Seventy-five are 5-skill level, 13 hold the 7-skill level, and 71 are in their first enlistment. Respondents with this job indicate they spend 58 percent of their time on general maintenance functions, 11 percent on administrative functions, and 11 percent maintaining forward-looking radar systems. FLIR Maintenance personnel are easily distinguished by the time they spend performing the following tasks:

operationally check FLIR systems on aircraft
purge photo-sensor systems using helium
bench check FLIR systems
align or adjust FLIR groups
remove or replace AAQ-10 SRUs
remove or replace FLIR groups

VII. IN-SHOP PAVE TACK MAINTENANCE (STG152, N=81). Survey data identified an In-Shop PAVE TACK Maintenance job as a separate A-shred job. Twenty-five percent of these respondents hold the 3-skill level, 61 percent hold the 5-skill level, and 15 percent hold the 7-skill level. In-Shop PAVE TACK Maintenance personnel have the broadest maintenance job in the career ladder, as they perform an average of 142 tasks. They spend 49 percent of their time on general maintenance functions, 8 percent on administrative functions, and 16 percent performing in-shop maintenance tasks on PAVE TACK AN/AVQ-26 systems such as those listed below:

boresight PAVE TACK pods
align or adjust PAVE TACK shop replaceable units (SRU)
bench check PAVE TACK systems
align or adjust pitch instrument assemblies (PIA)
remove or replace PAVE TACK SRUs
remove or replace laser transmitters

VIII. FLIGHTLINE PAVE TACK MAINTENANCE (STG122, N=22). While there is almost the same distribution of skill-level members with the In-Shop and Flightline PAVE TACK Maintenance jobs, the two jobs differ considerably. Members with the flightline job perform an average of 81 tasks, and their duty time is distributed somewhat differently from those with the in-shop PAVE TACK job. Flightline personnel spend 39 percent of their time on general maintenance tasks, 9 percent on administrative functions, 9 percent performing power functions, only 8 percent maintaining PAVE TACK AN/AVQ-26 systems, but 14 percent on CUT tasks, more time than members of any other job. Members with this job are distinguished by the time they spend on the following tasks:

operate aerospace ground equipment
upload or download PAVE TACK pods
walk wings or tails during aircraft towing operations
perform built-in tests (BIT) on PAVE TACK systems
perform single-point refueling or defueling
operationally check PAVE TACK systems on aircraft

IX. VIDEO SYSTEMS MAINTENANCE (GRP068, N=219). Twenty-one percent of the total sample, and 36 percent of all B-shred respondents, indicate they maintain video recording and cockpit television systems. Seventy percent are pay-grade E-3 and E-4, 26 percent hold the 3-skill level, 54 percent hold the 5-skill level, and average 54 months TAFMS. They spend 38 percent of their time performing general maintenance functions, 17 percent on administrative functions, and 21 percent maintaining video recorders and cockpit television systems. AFSC 455X0B personnel with this job are distinguished by the time they spend on the following tasks:

bench check airborne videotape recorders (AVTR)
remove or replace videotape recorders
bench check cockpit television systems (CTVS)
operationally check CTVS on aircraft
operationally check AVTRs on aircraft
perform mechanical alignments on videotape recorders

Survey data show there are two subgroups within this job. There are 33 junior personnel averaging 45 months TAFMS, who have been on the job only 16 months, almost half are 3-skill level, and who perform an average of only 42 tasks. There are also 186 more senior AFSC 455X0 personnel, over half of whom are 5-skill levels, average 64 months TAFMS, average 27 months on the job, and have a much broader job as they perform an average of 96 tasks.

X. IN-SHOP TACTICAL CAMERA MAINTENANCE (STG084, N=59). Panoramic and mapping cameras are the systems most maintained by B-shred personnel with this job. Twenty-seven percent of these in-shop personnel hold the 3-skill level, 59 percent hold the 5-skill level, 14 percent have the 7-skill level, and 65 percent are in their first enlistment. They spend 37 percent of their duty time performing general maintenance functions, 11 percent on administrative duties, and 24 percent maintaining camera systems. This is a somewhat broad job, as the AFSC 455X0B personnel with it perform an average of 115 tasks, including the following:

bench check framing camera systems
bench check aircraft camera parameter controls (ACPC)
bench check photoflash systems
align or adjust yoke and platen assemblies
align or adjust camera focal plane shutters
bench check mapping camera systems

XI. FLIGHTLINE TACTICAL CAMERA MAINTENANCE (STG140, N=98). The Flightline Tactical Camera Maintenance job is distinguished from the in-shop job. Thirty-three percent of the members in this job hold the 3-skill level, 45 percent hold the 5-skill level, 22 percent hold the 7-skill level, and 56 percent are in their first enlistment. Nearly all indicate they maintain panoramic and framing cameras, with about half indicating they also maintain mapping and radar recording cameras. Members indicate they spend 33 percent of their duty time performing general maintenance tasks, 23 percent maintaining camera systems, 8 percent performing administrative functions, and 7 percent maintaining the AAD-5 system. Personnel with the Flightline Tactical Camera Maintenance job are distinguished from the in-shop members by the time they spend on the following tasks:

operationally check ACPC on aircraft
upload or download film cassettes on aircraft
remove or replace infrared performance analyzers

remove or replace ACPCs
upload or download film cassettes using darkroom procedures
operationally check AAD-5 systems on aircraft

XII. STRATEGIC CAMERA MAINTENANCE (STG128, N=48). The Strategic Camera Maintenance job is distinguished from the Tactical Camera Maintenance job by the aircraft and camera systems involved more than by specific tasks performed. Nearly 70 percent of the members with this job report they maintain driftsight, viewsight, mapping, framing, optical bar, IRIS III, and T-35 cameras associated with the SR-71, U-2, and TR-1. All 48 members with this job are B-shred, 23 percent hold the 3-skill level, 76 percent hold the 5-skill level, and 10 percent hold the 7-skill level. Members spend 55 percent of their duty time performing general maintenance tasks, 17 percent on administrative functions, and 14 percent maintaining camera systems. They spend most of their time on the following tasks:

inventory flightline CTKs
complete AFTO Forms 349 (Maintenance Data Collection Record)
troubleshoot photo-sensor systems in shop
clean camera windows on aircraft
purge photo-sensor systems using nitrogen
set film counters in aircraft

XIII. JOBS NO LONGER PERFORMED IN CAREER LADDER. When the SR-71 was removed from the Air Force inventory, some of the camera systems on those aircraft were modified and installed in the U-2 and TR-1. The side-looking radar system, however, has not been reused, and thus, the Side-Looking Radar Maintenance job (STG103, N=30) is no longer done. In addition, most atmospheric research equipment previously maintained by AFSC 455X0A personnel became the responsibility of AFSC 99104 personnel in October 1989. Therefore, the Atmospheric Research Equipment Maintenance job (STG078, N=20) is also no longer done.

Comparison to Previous Survey

Jobs identified in the present survey were compared to those reported in the two previous OSRs (see Table 5). The changes in the career ladder structure over the last 8 years include the recent phasing out of strategic reconnaissance aircraft with their SLR and special cameras, and the transfer of maintaining atmospheric research equipment to AFSC 99104. The other differences in job names shown in Table 5 reflect equipment changes that have occurred over the last 8 years.

TABLE 5

COMPARISON OF CAREER LADDER STRUCTURE FOR
CURRENT AND PREVIOUS SURVEY

JOBS IDENTIFIED IN CURRENT STUDY	JOBS IDENTIFIED IN PREVIOUS OSRs
IN-SHOP TACTICAL CAMERA MAINTENANCE	ELECTRO-OPTICAL CAMERA AND RECONNAISSANCE ELECTRIC SENSOR SYSTEMS REPAIR
FLIGHTLINE TACTICAL CAMERA MAINTENANCE	STRIKE CAMERA SYSTEMS REPAIR
FLIR MAINTENANCE	INFRARED SENSOR AND SIDE-LOOKING RADAR RECONNAISSANCE
SLR MAINTENANCE	SAC RECONNAISSANCE EQUIPMENT REPAIR PHOTOGRAPHIC CAMERA SYSTEMS REPAIR
STRATEGIC CAMERA MAINTENANCE	VIDEO AND COCKPIT TELEVISION SYSTEMS REPAIR
VIDEO SYSTEMS MAINTENANCE	PAVE PENNY SYSTEMS REPAIR
PAVE PENNY MAINTENANCE	PAVE TACK SYSTEMS REPAIR
IN-SHOP PAVE TACK MAINTENANCE FLIGHTLINE PAVE TACK MAINTENANCE	PAVE SPIKE/TISEO FLIGHTLINE MAINTENANCE
TISEO MAINTENANCE	SUPERVISION
SHOP SUPERVISOR	ADMINISTRATION
ADMINISTRATIVE AND SUPERVISORY	TECHNICAL TRAINING
RESIDENT INSTRUCTOR	PAVE SPECTRE SYSTEM REPAIR
NOT IDENTIFIED	PAVE SPIKE SYSTEMS REPAIR
NOT IDENTIFIED	

Summary

Survey data show this is a rather diverse career ladder with a number of equipment-specific jobs. The two shreds are identified quite clearly by the equipment maintained. Survey data show little overlap between the shreds and that photo-sensor personnel tend to be experienced on only a limited number of equipment items.

CAREER LADDER PROGRESSION

Analysis of DAFSC groups, together with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed by members of the various skill-level groups, which in turn may be used to determine how well career ladder documents, such as AFR 39-1 Specialty Descriptions and the STS, reflect what members of the various skill level groups are doing.

The distribution of skill-level members across the specialty jobs is displayed in Table 6, while relative amounts of time members of the various skill-level groups spend on duties is shown in Table 7. These data show a distinction between equipment maintained by members of the two shreds, and that most members work on only equipment related to their shred. All AFSC 455X0 personnel, regardless of shred, perform many general maintenance, administrative, and power procedure tasks as part of their jobs (Table 7). They are distinguished, however, by the time spent on duties related to specific equipment items. Generally, the 3- and 5-skill level members of each shred perform mainly maintenance functions, while the 7-skill level members are administrators and supervisors.

AFR 39-1 SPECIALTY JOB DESCRIPTION ANALYSIS

The current AFR 39-1 Specialty Descriptions for the career ladder were compared to jobs performed by members of both shreds. The Specialty Descriptions for the Tactical/Reconnaissance Electronic Sensor-shred will have to be changed to reflect that side-looking radar and most atmospheric research equipment is no longer maintained by AFSC 455X0A personnel. The description for the Reconnaissance/Electro-optical Sensor-shred may need to be changed to reflect the camera systems no longer maintained by AFSC 455X0B personnel.

TABLE 6

DISTRIBUTION OF SKILL LEVEL MEMBERS
ACROSS CAREER LADDER JOBS
(PERCENT)

JOBS	45530/50A (N=342)	45570A (N=132)	45530/50B (N=428)	45570B (N=159)
ADMINISTRATIVE AND SUPERVISORY	3%	35%	7%	40%
RESIDENT INSTRUCTOR	2%	1%	1%	2%
SHOP SUPERVISOR	2%	7%	2%	7%
TISEO MAINTENANCE	3%	0	0	0
PAVE PENNY MAINTENANCE	15%	9%	3%	*
FLIR MAINTENANCE	23%	10%	*	3%
IN-SHOP PAVE TACK MAINTENANCE	19%	9%	*	0
FLIGHTLINE PAVE TACK MAINTENANCE	4%	7%	0	0
VIDEO SYSTEMS MAINTENANCE	2%	*	41%	20%
IN-SHOP TACTICAL CAMERA MAINTENANCE	0	0	12%	5%
FLIGHTLINE TACTICAL CAMERA MAINTENANCE	0	0	18%	14%
SLR MAINTENANCE	8%	1%	*	0
STRATEGIC CAMERA MAINTENANCE	0	0	10%	3%
ATMOSPHERIC RESEARCH EQUIPMENT MAINTENANCE	5%	2%	0	0
UNGROUPED	13%	17%	10%	6%

* Denotes less than 1 percent

TABLE 7

TIME SPENT ON DUTIES BY MEMBERS OF SKILL LEVEL GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTIES	45530/50A (N=342)	45570A (N=132)	45530/50B (N=428)	45570B (N=159)
A ORGANIZING AND PLANNING	2	12	2	10
B DIRECTING AND IMPLEMENTING	3	12	4	12
C INSPECTING AND EVALUATING	2	12	2	10
D TRAINING	4	8	2	7
E PERFORMING ADMINISTRATIVE FUNCTIONS	14	19	15	22
F PERFORMING GENERAL MAINTENANCE ON PHOTO-SENSOR SYSTEMS	46	22	39	21
G PERFORMING POWER PROCEDURES	5	3	5	3
H MAINTAINING PODS	3	1	*	*
I MAINTAINING PAVE TACK AN/AVQ-26 SYSTEMS	4	2	*	*
J MAINTAINING RADAR MAPPING SENSOR SYSTEMS	*	*	*	*
K MAINTAINING PAVE SPIKE AN/ASQ-153 SYSTEMS	*	*	*	0
L MAINTAINING LOW LIGHT LEVEL TELEVISION SYSTEMS	*	*	*	*
M MAINTAINING FORWARD LOOKING INFRARED RADAR SYSTEMS	3	*	*	*
N MAINTAINING SIDE LOOKING RADAR SYSTEMS	2	*	*	*
O MAINTAINING TARGET IDENTIFICATION SYSTEM ELECTRO-OPTICAL AN/ASX-1 SYSTEMS	1	*	*	*
P MAINTAINING PAVE PENNY AN/AAS-35 SYSTEMS	3	2	*	*
Q MAINTAINING ATMOSPHERIC RESEARCH EQUIPMENT	2	1	*	*
R MAINTAINING AAD-5 SYSTEMS	*	*	2	2
S MAINTAINING DATA DISPLAY SYSTEMS	*	*	1	*
T MAINTAINING CAMERA SYSTEMS	*	*	11	6
U MAINTAINING VIEWFINDER AND VIEWSIGHT SYSTEMS	*	*	1	*
V MAINTAINING VIDEO RECORDING AND COCKPIT TELEVISION SYSTEMS	2	*	11	5
W MAINTAINING MOUNT SYSTEMS	*	*	*	*
X PERFORMING CROSS-UTILIZATION TRAINING (CUT) TASKS	2	*	2	*

* Denotes less than 1 percent

SKILL LEVEL DESCRIPTIONS

AFSC 455X0A Tactical/Reconnaissance Electronic Sensors Maintenance

DAFSC 45530/50A. DAFSC 45530/50A respondents constitute 32 percent of the total sample and have a 78 percent-time-spent overlap on common tasks, indicating they perform essentially the same job. Because of the high overlap, a combined job description was created and used in further analyses. As shown in Table 6, most 3- and 5-skill level members have the FLIR Maintenance, In-Shop PAVE TACK Maintenance, and PAVE PENNY Maintenance jobs. Thirteen percent of 3- and 5-skill level A-shred members could not be grouped because of the diversity of tasks they perform. Representative tasks DAFSC 45530/50A members perform are listed in Table 8. Note these tasks are general maintenance and power procedure tasks not related to maintaining specific sensor equipment.

DAFSC 45570A. Seven-skill level personnel constitute 12 percent of the total sample. As shown in Table 6, the highest percentage have administrative and supervisory jobs, with smaller percentages in the other A-shred jobs. Representative tasks DAFSC 45570A members perform are listed in Table 9 and are related to administrative and supervisory duties. Tasks that best distinguish between DAFSC 45530/50A and 45570A personnel are shown in Table 10. Figures in the top portion of the table show a greater percentage of 3- and 5-skill level personnel perform maintenance tasks, while figures in the lower half clearly show more 7-skill level personnel perform administrative and supervisory tasks.

AFSC 455X0B Reconnaissance/Electro-optical Sensors Maintenance

DAFSC 45530/50B. DAFSC 45530/50B respondents constitute 40 percent of the total sample and have an 82 percent-time-spent overlap on common tasks, indicating they perform essentially the same job. Because of the high overlap, a combined job description was created and used in further analyses. As shown in Table 6, the largest proportion of 3- and 5-skill level B-shred members have the Video Recorder and Cockpit Camera System Maintenance job, and smaller percentages with the In-Shop and Flightline Tactical Camera Maintenance jobs. Ten percent of 3- and 5-skill level B-shred respondents are not included in any jobs because of the diversity of tasks they perform. Representative tasks DAFSC 45530/50B members perform are listed in Table 11. Note most of these tasks are the same general maintenance tasks performed by DAFSC 45530/50A personnel. This list does include, however, several tasks dealing specifically with camera system maintenance, unique to the B-shred.

DAFSC 45570B. Seven-skill level B-shred personnel constitute 15 percent of the total sample. As shown in Table 6, the highest percentage have the Administrative and Supervisory job, with the next largest percentage with the Video Recorder and Cockpit Television System Maintenance job. Representative tasks DAFSC 45570B members perform are listed in Table 12 and, like tasks DAFSC 45570A respondents perform, are mostly related to administrative and

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY 45530/50A PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=342)
F240	READ OR INTERPRET SCHEMATICS	78
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	78
F241	READ OR INTERPRET WIRING DIAGRAMS	76
F292	SAFETY-WIRE EQUIPMENT	76
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	73
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	73
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	73
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	71
F205	INVENTORY FLIGHTLINE CTKs	70
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	70
F196	CRIMP PINS	70
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	69
F238	READ OR INTERPRET BLOCK DIAGRAMS	69
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	68
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	67
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	64
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	64
E128	LOCATE INFORMATION IN COMMERCIAL PUBLICATIONS	64
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	64
F161	ALIGN OR ADJUST ELECTRONIC COMPONENTS ON CIRCUIT CARDS	63
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	62
F193	CLEAN MIRRORS OR LENS	61
F237	PURGE PHOTO-SENSOR SYSTEMS USING NITROGEN	58
E114	COMPLETE AFTO FORMS 244 (INDUSTRIAL/SUPPORT EQUIPMENT RECORD)	56
G311	POSITION AGE TO AIRCRAFT	56
F199	DON AND DOFF PROTECTIVE CLOTHING, SUCH AS APRONS, GOGGLES, OR GLOVES	49
E121	COMPLETE EQUIPMENT STATUS TAGS	49
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	43
E127	INPUT DATA USING COMPUTERS	40

TABLE 9

REPRESENTATIVE TASKS PERFORMED BY 45570A PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=132)
C69	WRITE APRs	76
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	74
C64	PERFORM SELF-INSPECTIONS	66
A12	ESTABLISH WORK PRIORITIES	64
C56	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	61
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	61
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	59
A2	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	58
C65	PROVIDE TECHNICAL ASSISTANCE FOR JOB-RELATED MATTERS	58
D76	CONDUCT OJT	56
A16	PLAN WORK ASSIGNMENTS	55
E145	REVIEW FLYING SCHEDULES	53
D80	DETERMINE TRAINING REQUIREMENTS	52
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	52
E127	INPUT DATA USING COMPUTERS	49
F205	INVENTORY FLIGHTLINE CTKs	49
A8	ESTABLISH PERFORMANCE STANDARDS FOR PERSONNEL	49
A11	ESTABLISH WORK METHODS OR PROCEDURES	48
B30	DIRECT OR PARTICIPATE IN MOBILITY EXERCISES	48
A17	PREPARE BRIEFINGS	47
A3	DETERMINE PERSONNEL REQUIREMENTS	46
A1	CONDUCT MEETINGS, SUCH AS STAFF MEETINGS, COUNCIL MEETINGS, OR BOARD MEETINGS	45
B31	DISPATCH MAINTENANCE CREWS	45
A1	CONDUCT MEETINGS, SUCH AS STAFF MEETINGS, COUNCIL MEETINGS, OR BOARD MEETINGS	45
C66	REVIEW OR INDORSE ENLISTED PERFORMANCE REPORTS (EPR)	43
C55	EVALUATE INSPECTION REPORTS OR PROCEDURES	40
B49	SUPERVISE TACTICAL/RECONNAISSANCE ELECTRONIC SENSOR TECHNICIANS (AFSC 45570A)	40
B29	COORDINATE SYSTEM MALFUNCTIONS WITH APPROPRIATE UNITS	39
A14	PLAN SAFETY PROGRAMS	23

TABLE 10

EXAMPLES OF TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 45530/50A AND DAFSC 45570A PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS		45530/50A (N=342)	45570A (N=132)	DIFFERENCE
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	73	37	36
F292	SAFETY-WIRE EQUIPMENT	76	41	35
F218	PERFORM CORROSION CONTROL ON SUPPORT EQUIPMENT	65	32	33
G306	BENCH CHECK POWER SUPPLIES	59	27	32
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	70	39	31
C69	WRITE EPRs	23	76	-53
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	27	74	-47
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	14	59	-45
A2	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	15	58	-43
A12	ESTABLISH WORK PRIORITIES	21	64	-43

TABLE 11

REPRESENTATIVE TASKS PERFORMED BY 45530/50B PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=428)
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	85
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	79
F205	INVENTORY FLIGHTLINE CTKs	76
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	75
F240	READ OR INTERPRET SCHEMATICS	75
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	74
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	72
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	71
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	71
F212	PACK OR UNPACK PHOTO-SENSOR SYSTEM EQUIPMENT	71
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	70
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	70
F254	REMOVE OR REPLACE COCKPIT CONTROL PANELS	70
F241	READ OR INTERPRET WIRING DIAGRAMS	70
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	68
G311	POSITION AGE TO AIRCRAFT	67
F292	SAFETY-WIRE EQUIPMENT	67
F193	CLEAN MIRRORS OR LENS	66
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	65
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	64
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	64
F223	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON PHOTO-SENSOR SYSTEMS	63
E104	COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	61
V675	BENCH CHECK AIRBORNE VIDEOTAPE RECORDERS (AVTR)	59
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	59
E121	COMPLETE EQUIPMENT STATUS TAGS	59
V680	OPERATIONALLY CHECK AVTRs ON AIRCRAFT	56
V687	REMOVE OR REPLACE VIDEOTAPE RECORDERS	55
E127	INPUT DATA USING COMPUTERS	45
V681	OPERATIONALLY CHECK CTVs ON AIRCRAFT	41

TABLE 12

REPRESENTATIVE TASKS PERFORMED BY 45570B PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=159)
C69	WRITE EPRs	76
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	75
C64	PERFORM SELF-INSPECTIONS	73
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	70
C56	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	67
B46	SUPERVISE RECONNAISSANCE/ELECTRO-OPTICAL SENSOR SPECIALISTS (AFSC 45550B)	67
A12	ESTABLISH WORK PRIORITIES	67
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	65
C65	PROVIDE TECHNICAL ASSISTANCE FOR JOB-RELATED MATTERS	64
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	62
A16	PLAN WORK ASSIGNMENTS	62
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	62
F240	READ OR INTERPRET SCHEMATICS	60
F241	READ OR INTERPRET WIRING DIAGRAMS	60
B42	SUPERVISE APPRENTICE RECONNAISSANCE/ELECTRO-OPTICAL SENSOR SPECIALISTS (AFSC 45530B)	58
E145	REVIEW FLYING SCHEDULES	58
A2	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	58
E127	INPUT DATA USING COMPUTERS	57
F205	INVENTORY FLIGHTLINE CTKs	57
E121	COMPLETE EQUIPMENT STATUS TAGS	57
D80	DETERMINE TRAINING REQUIREMENTS	55
B24	CONDUCT FOLLOWUP ACTION ON SUPPLY OR WORK REQUESTS	53
B31	DISPATCH MAINTENANCE CREWS	53
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	53
B30	DIRECT OR PARTICIPATE IN MOBILITY EXERCISES	52
D87	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	48
B47	SUPERVISE RECONNAISSANCE/ELECTRO-OPTICAL SENSOR TECHNICIANS (AFSC 45570B)	47
A3	DETERMINE PERSONNEL REQUIREMENTS	46

supervisory duties. Tasks that best distinguish between AFSC 45530/50B and 45570B personnel are shown in Table 13. Again, figures in the top portion of the table show a greater percentage of 3- and 5-skill level personnel perform maintenance tasks, while figures in the lower half clearly show more 7-skill level personnel perform administrative and supervisory tasks.

Summary

Survey data show both A- and B-shred Photo-sensor Maintenance personnel progress typically through the skill levels to the 7-skill level. Three- and 5-skill level personnel perform mainly technical equipment maintenance tasks, while 7-skill level members are first-line supervisors, performing a mixture of technical and supervisory tasks.

TRAINING ANALYSIS

Occupational survey data are a source of information used to review training documents for the specialty. The three most commonly used types of data are: (1) percent of first-enlistment personnel performing tasks, (2) ratings of how much training emphasis tasks should receive in the basic resident course, and (3) ratings of relative difficulty of tasks. Only percent members performing data can be used with this study because of the lack of agreement on TE and TD ratings for technical tasks in the inventory.

A Training Extract has been produced for each shred containing a complete listing of all tasks in the inventory, the nonelectronic principles STS, and POI, along with tasks matched to elements and learning objectives, and percent first-job, first-enlistment, 5- and 7-skill level members performing each matched task. Electronics principles data for each shred are listed in a separate extract which contains EPI data matched to elements of the electronics principles STS. Copies of all extracts have been forwarded to technical school personnel for their use in reviewing training documents for the shreds. The TRA, scheduled to be printed in April 1990, will also be sent to the technical school for use in reviewing training documents. A summary of OSR information is presented below.

First-Enlistment Tactical/Reconnaissance Electronic Sensors Maintenance Personnel (AFSC 455X0A)

Two hundred and twenty-one A-shred respondents indicated they are in their first enlistment. As shown by Figure 2, the largest percentages have the FLIR Maintenance, Shop PAVE TACK and PAVE PENNY Maintenance jobs. The relative amount of time first-enlistment A-shred personnel spend on duties is presented in Table 14, while representative tasks performed are listed in Table 15. These data show first-enlistment A-shred personnel are mainly involved with maintaining these three sensor systems.

TABLE 13

EXAMPLES OF TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 45530/50B AND DAFSC 45570B PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS		45530/50B (N=428)	45570B (N=159)	DIFFERENCE
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	64	33	31
F193	CLEAN MIRRORS OR LENS	66	36	30
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	85	56	29
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	64	36	28
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	71	44	27
C69	WRITE EPRs	21	76	-55
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	22	75	-53
C56	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	16	67	-51
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	14	62	-48
A12	ESTABLISH WORK PRIORITIES	19	67	-48

FIRST ASSIGNMENT AFSC 455XOA
CAREER LADDER JOBS

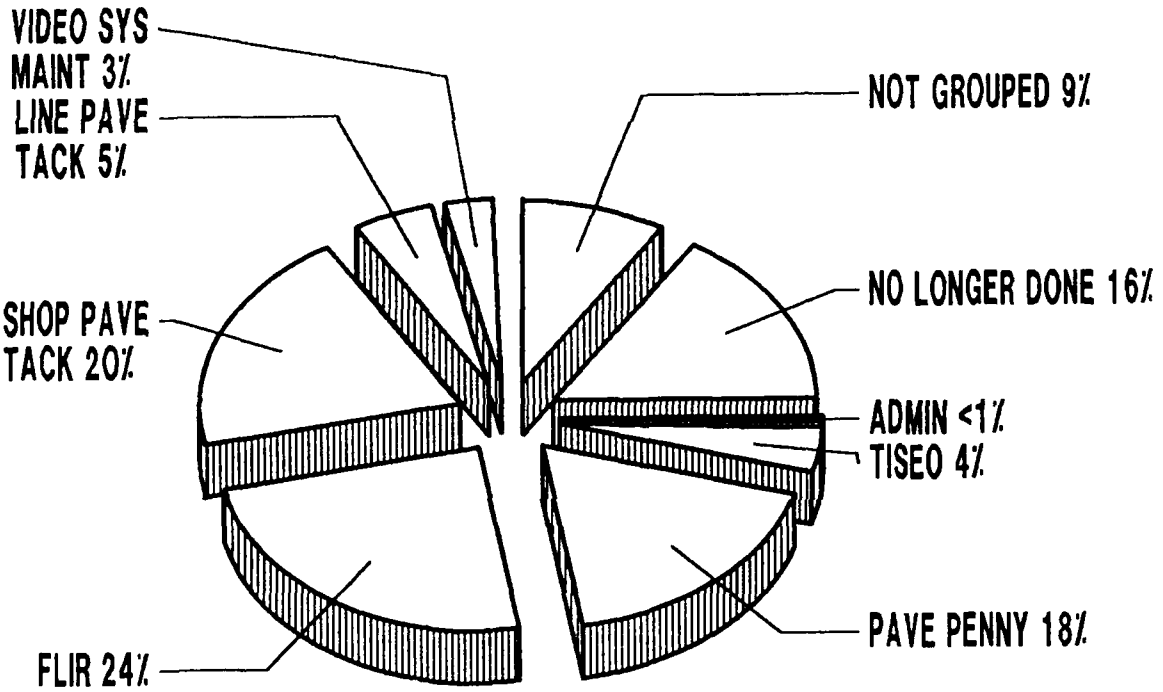

FIGURE 2

TABLE 14

RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES
BY FIRST-ENLISTMENT AFSC 455X0A PERSONNEL

DUTIES		1-48 MOS TAFMS (N=221)
A	ORGANIZING AND PLANNING	*
B	DIRECTING AND IMPLEMENTING	2
C	INSPECTING AND EVALUATING	1
D	TRAINING	*
E	PERFORMING ADMINISTRATIVE FUNCTIONS	12
F	PERFORMING GENERAL MAINTENANCE ON PHOTO-SENSOR SYSTEMS	51
G	PERFORMING POWER PROCEDURES	6
H	MAINTAINING PODS	3
I	MAINTAINING PAVE TACK AN/AVQ-26 SYSTEMS	4
J	MAINTAINING RADAR MAPPING SENSOR SYSTEMS	*
K	MAINTAINING PAVE SPIKE AN/ASQ-153 SYSTEMS	*
L	MAINTAINING LOW LIGHT LEVEL TELEVISION SYSTEMS	*
M	MAINTAINING FORWARD LOOKING INFRARED RADAR SYSTEMS	3
N	MAINTAINING SIDE LOOKING RADAR SYSTEMS	2
O	MAINTAINING TARGET IDENTIFICATION SYSTEM ELECTRO-OPTICAL AN/ASX-1 SYSTEMS	2
P	MAINTAINING PAVE PENNY AN/AAS-35 SYSTEMS	4
Q	MAINTAINING ATMOSPHERIC RESEARCH EQUIPMENT	2
R	MAINTAINING AAD-5 SYSTEMS	*
S	MAINTAINING DATA DISPLAY SYSTEMS	*
T	MAINTAINING CAMERA SYSTEMS	1
U	MAINTAINING VIEWFINDER AND VIEWSIGHT SYSTEMS	*
V	MAINTAINING VIDEO RECORDING AND COCKPIT TELEVISION SYSTEMS	2
W	MAINTAINING MOUNT SYSTEMS	*
X	PERFORMING CROSS-UTILIZATION TRAINING (CUT) TASKS	2

TABLE 15

REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT
AFSC 455X0A PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=221)
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	83
F240	READ OR INTERPRET SCHEMATICS	81
F292	SAFETY-WIRE EQUIPMENT	79
F241	READ OR INTERPRET WIRING DIAGRAMS	79
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	77
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	77
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	75
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	74
F205	INVENTORY FLIGHTLINE CTKs	73
F196	CRIMP PINS	73
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	72
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	72
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	72
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	71
F238	READ OR INTERPRET BLOCK DIAGRAMS	71
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	70
F218	PERFORM CORROSION CONTROL ON SUPPORT EQUIPMENT	69
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	67
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	65
F193	CLEAN MIRRORS OR LENS	64
F161	ALIGN OR ADJUST ELECTRONIC COMPONENTS ON CIRCUIT CARDS	63
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	61
F237	PURGE PHOTO-SENSOR SYSTEMS USING NITROGEN	61
F220	PERFORM HIGH RELIABILITY SOLDERING	60
G311	POSITION AGE TO AIRCRAFT	59
F232	PRESSURIZE PHOTO-SENSOR SYSTEMS	57
E114	COMPLETE AFTO FORMS 244 (INDUSTRIAL/SUPPORT EQUIPMENT RECORD)	56
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	46
E127	INPUT DATA USING COMPUTERS	39

First-Enlistment Reconnaissance/Electro-optical Sensors Maintenance Personnel (AFSC 455X0B)

Two hundred and ninety-two first-enlistment B-shred respondents are included in the sample. Figure 3 shows nearly half have the Video Systems Maintenance job, with smaller percentages doing shop and flightline tactical camera maintenance. Relative amounts of time first-enlistment B-shred personnel spend on duties is presented in Table 16, while representative tasks performed are listed in Table 17. It is obvious that first-enlistment B-shred personnel are mostly involved with camera system maintenance.

Specialty Training Standards (STS)

For the purposes of reviewing the STS and POI for the shreds of the AFSC, OMC personnel met with 3450th Technical Training Group personnel at Lowry AFB to match tasks listed in the job inventory to nonelectronic principles STS line items and learning objectives in the POIs. The end product of the match was used to produce listings of the nonelectronic fundamentals portion of the STSs and POIs with job inventory tasks matched and percent members performing the tasks (TE and TD ratings, and ATI values for each matched task are not included with this study). The listings are included in the Training Extracts sent to the school for review. Criteria set forth in AFR 8-13, AFR 8-13/ATC Supplement 1 (Attachment 1, paragraph A1-3c(4)), and ATCR 52-22 Attachment 1, were used to review the relevance of each STS element that had inventory tasks matched to it.

The portions of each STS and POI dealing with electronics fundamentals are included in the Electronics Principles Inventory (EPI) administered to AFSC 455X0 personnel between September 1987 and April 1988. Listings of these portions of the training documents for each shred were produced showing EPI statements matched to individual line items and objectives and percentages of AFSC 455X0A and B personnel responding. These listings are included in separate Electronics Principles extracts.

AFSC 455X0A STS. The first 10 paragraphs of the A-shred STS deal with the general topics of career ladder progression, security, AFOSH, publications, supply, graduate evaluation, supervision, training, maintenance management, management, and inspections, and were not reviewed. Technical aspects of the career ladder are covered in paragraphs 11 through 18. Much of this portion of the STS (paragraphs 17 and 18) deals with specific equipment items taught at base FTDs and in qualification training rather than at the technical school and, therefore, have a dash (-) for the 3-skill level training code. Also, many line items deal with cameras and atmospheric research equipment no longer maintained by AFSC 455X0A personnel. A number of tasks matched to the line items are very general maintenance functions, since the inventory could not include specific maintenance steps for each individual piece of equipment. In addition, the AAD-7 Infrared System covered by STS paragraph 17e has been replaced with the AAQ-17 Infrared System since the survey was administered. This system is new to the field and is covered by a 1-year maintenance contract with the manufacturer, so AFSC 455X0A personnel will not be actually

FIRST ASSIGNMENT AFSC 455XOB
CAREER LADDER JOBS

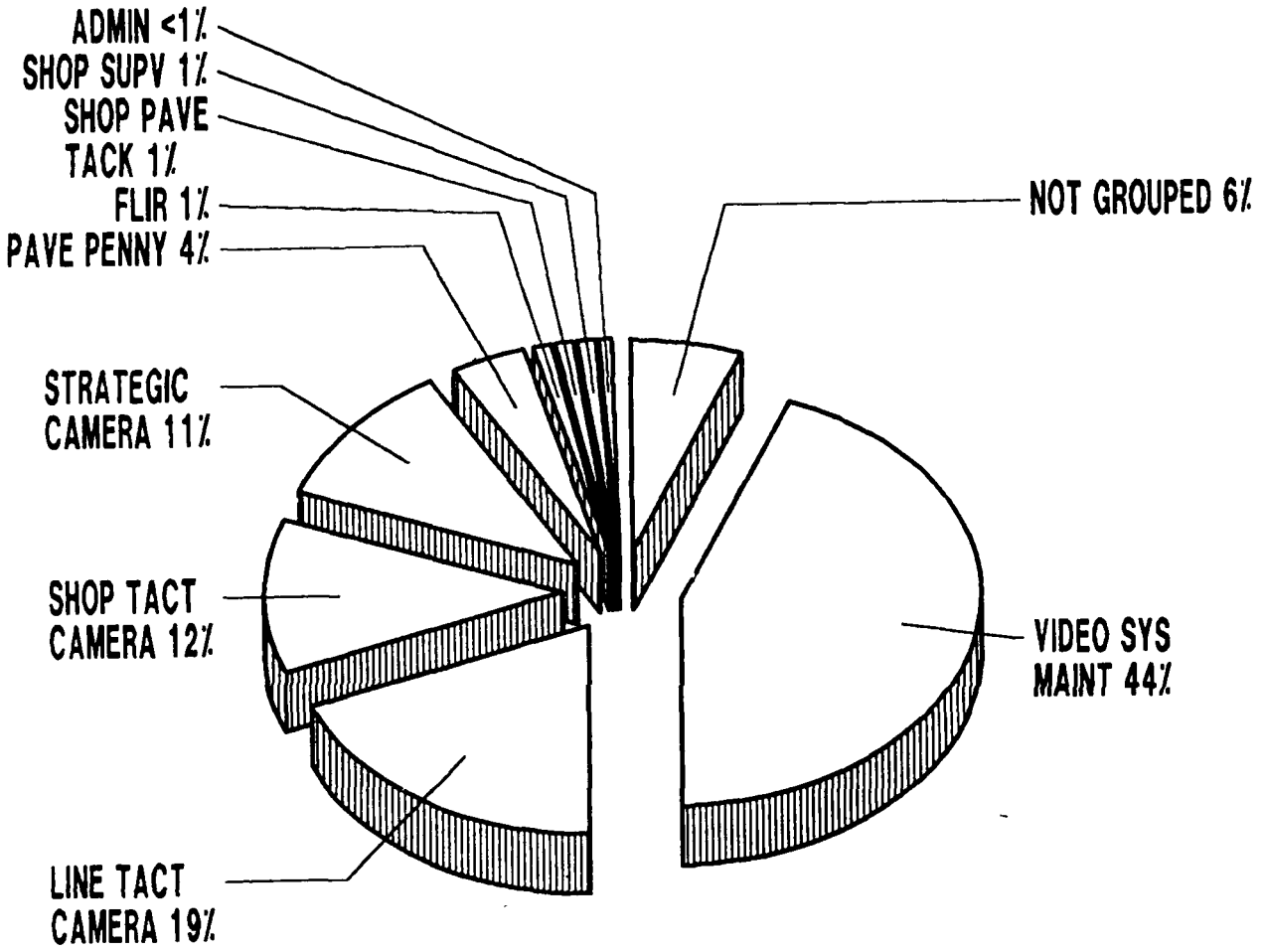

FIGURE 3

TABLE 16

RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES
BY FIRST-ENLISTMENT AFSC 455X0B PERSONNEL

DUTIES		1-48 MOS TAFMS (N=292)
A	ORGANIZING AND PLANNING	*
B	DIRECTING AND IMPLEMENTING	2
C	INSPECTING AND EVALUATING	*
D	TRAINING	*
E	PERFORMING ADMINISTRATIVE FUNCTIONS	14
F	PERFORMING GENERAL MAINTENANCE ON PHOTO-SENSOR SYSTEMS	42
G	PERFORMING POWER PROCEDURES	6
H	MAINTAINING PODS	*
I	MAINTAINING PAVE TACK AN/AVQ-26 SYSTEMS	*
J	MAINTAINING RADAR MAPPING SENSOR SYSTEMS	*
K	MAINTAINING PAVE SPIKE AN/ASQ-153 SYSTEMS	*
L	MAINTAINING LOW LIGHT LEVEL TELEVISION SYSTEMS	*
M	MAINTAINING FORWARD LOOKING INFRARED RADAR SYSTEMS	*
N	MAINTAINING SIDE LOOKING RADAR SYSTEMS	*
O	MAINTAINING TARGET IDENTIFICATION SYSTEM ELECTRO-OPTICAL AN/ASX-1 SYSTEMS	*
P	MAINTAINING PAVE PENNY AN/AAS-35 SYSTEMS	*
Q	MAINTAINING ATMOSPHERIC RESEARCH EQUIPMENT	0
R	MAINTAINING AAD-5 SYSTEMS	2
S	MAINTAINING DATA DISPLAY SYSTEMS	1
T	MAINTAINING CAMERA SYSTEMS	12
U	MAINTAINING VIEWFINDER AND VIEWSIGHT SYSTEMS	1
V	MAINTAINING VIDEO RECORDING AND COCKPIT TELEVISION SYSTEMS	13
W	MAINTAINING MOUNT SYSTEMS	*
X	PERFORMING CROSS-UTILIZATION TRAINING (CUT) TASKS	2

TABLE 17

REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT
AFSC 455X0B PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=292)
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	89
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	81
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	78
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	77
F240	READ OR INTERPRET SCHEMATICS	76
F212	PACK OR UNPACK PHOTO-SENSOR SYSTEM EQUIPMENT	76
F205	INVENTORY FLIGHTLINE CTKs	75
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	75
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	73
F254	REMOVE OR REPLACE COCKPIT CONTROL PANELS	73
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	72
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	72
F292	SAFETY-WIRE EQUIPMENT	71
F193	CLEAN MIRRORS OR LENS	71
F241	READ OR INTERPRET WIRING DIAGRAMS	71
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	70
G311	POSITION AGE TO AIRCRAFT	70
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	68
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	67
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	66
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	66
F223	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON PHOTO-SENSOR SYSTEMS	64
V675	BENCH CHECK AIRBORNE VIDEOTAPE RECORDERS (AVTR)	62
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	60
V680	OPERATIONALLY CHECK AVTRs ON AIRCRAFT	59
V687	REMOVE OR REPLACE VIDEOTAPE RECORDERS	58
E121	COMPLETE EQUIPMENT STATUS TAGS	58
V684	PERFORM MECHANICAL ALIGNMENTS ON VIDEOTAPE RECORDERS	54
V681	OPERATIONALLY CHECK CTVs ON AIRCRAFT	43
V676	BENCH CHECK COCKPIT TELEVISION SYSTEMS (CTVS)	43

working on the new system until after 1991. Tasks matched to line items in paragraph 17e reflect what AFSC 455X0A personnel were doing at the time of the survey.

Using AFR 8-13 criteria, most elements in the STS with tasks matched are supported by survey data, meaning tasks matched are performed by more than 20 percent first-job, first-enlistment, 5-, or 7-skill level members. There are, however, some exceptions. Specifically, most elements dealing with performing functional or operational checks on the various equipment items or components are not supported. Because the inventory could not include tasks dealing with specific functional or operational checks of every piece of equipment, subject-matter experts at the school had to match quite general tasks to these line items. There are also some line items dealing with alignments and troubleshooting that are also not supported. Because there are so many unsupported items, they will not be listed in this report, but are displayed with matched tasks and survey data in Appendix B, Table B1.

There are a number of tasks performed by more than 20 percent of criterion group members that are not matched to STS elements (Appendix B, Table B2). These tasks were reviewed to determine if they deal with a particular function or are related to a specific job. A number appear to relate to basic electronic principles, while others appear to be general in-shop maintenance tasks. Training personnel and subject-matter experts need to review these unmatched tasks to determine if they suggest material that should be added to the STS.

AFSC 455X0B STS. The first 10 paragraphs of the B-shred STS also deal with general topics of career ladder progression, security, AFOSH, publications, supply, graduate evaluation, supervision and training, maintenance, and inspections, and were not reviewed. Technical aspects of the career ladder are covered in paragraphs 11 through 15. Most tasks matched to STS elements deal with general maintenance functions rather than specific maintenance steps on individual cameras. On-equipment maintenance (Paragraph 14) is taught in FTD courses at bases where the specific aircraft are assigned rather than in the entry-level course. In addition, support and test equipment, covered by paragraph 15, only became a responsibility of AFSC 455X0B personnel in 1988. Before 1988, support and test equipment was maintained by AFSC 326X0 (Avionics Aerospace Ground Equipment) personnel. Thus, maintenance of support and test equipment is relatively new to members of this career ladder.

Airborne video recording systems are common to many types of aircraft in the USAF inventory, and nearly all B-shred personnel are familiar with them. Reconnaissance cameras, on the other hand, are not as common because there is a decreasing number of reconnaissance bases and aircraft. The result is most B-shred personnel have limited experience with individual reconnaissance camera systems.

Using AFR 8-13 criteria, all but three elements matched to tasks are supported by survey data, meaning matched tasks are performed by more than 20 percent of first-job, first-enlistment, 5-, or 7-skill level members. The three unmatched STS elements are: 13D(6) - Remove SRUs, 13D(7) - Replace SRUs, and 13F(3) - Perform Functional Checkout. These individual STS

elements, with matched tasks and survey data, are included in Table 18 and should be reviewed by career field managers and training personnel to determine if they should be retained in the STS.

There are a number of tasks performed by more than 20 percent of criterion group members that are not matched to STS elements (Table 19). These tasks were reviewed to determine if they concentrate around any particular function or are related to a specific job. Several deal with ground equipment, while most others appear to be general maintenance tasks. Training personnel and subject-matter experts need to review these unmatched tasks to determine if they suggest material that should be added to the STS.

Electronic Principles Specialty Training Standards

A-shred Electronic Principles STS. Responses of the 149 AFSC 45550A personnel who completed the EPI in 1988 were matched to the AFSC 455X0A Electronic Principles/Applications STS. Results show less than 20 percent of the AFSC 455X0A personnel taking the EPI responded with a "yes" to questions asking if they use the principle, skill, or equipment of the subjects listed in Appendix B, Table B3. Most of these subjects have either a knowledge or performance training code, a slash, and a dash (-) (i.e., 2b/-) indicating that, while the subject is not presently being taught in the course, there is still a proficiency requirement. EPI data for A-shred personnel show no support for even the proficiency requirements for these topics and suggest these topics should have only a dash (-) for a training code and, therefore, not be included in the course.

In addition, EPI data show more than 20 percent of the AFSC 45550A respondents use a number of principles, skills, or equipment not taught in the course. These EPI subjects are related to maintenance of specific items of sensor equipment and are taught in either the 3ABR45530A, Apprentice Photo-Sensor Maintenance Course, or in FTD courses on the individual equipment items. They, therefore, do not need to be included in the entry-level electronics course.

B-shred Electronic Principles STS. Responses of the 146 AFSC 45550B personnel who completed the EPI in 1988 were matched to the AFSC 455X0B Electronic Principles/Applications STS. Results show that for the subjects listed in Appendix B, Table B6, less than 20 percent of the AFSC 45550B personnel taking the EPI responded with a "yes" to questions asking if they use the related principle, skill, or equipment. Most of these subjects also have either a knowledge or performance training code, a slash, and a dash (i.e., 2b/-) indicating the subjects are not being taught in the course, but have a proficiency requirement. EPI survey data show no support for the proficiency requirement for these topics and suggest that the training code should be changed to just a dash (-).

In addition, EPI data show more than 20 percent of AFSC 45550B EPI respondents use a number of principles, skills, or equipment not taught in the course. These EPI subjects are related to maintenance of specific items of sensor equipment, and are taught in either the 3ABR45530B, Apprentice

TABLE 18

UNSUPPORTED AFSC 455X0B STS ELEMENTS

	PERCENT MEMBERS PERFORMING			
	1ST JOB	1ST ENL	5-LVL	7-LVL
13D(6). REMOVE SRUs				
T650 REMOVE OR REPLACE SHUTTER ASSEMBLIES	18	17	17	11
13D(7). REPLACE SRUs				
T650 REMOVE OR REPLACE SHUTTER ASSEMBLIES	18	17	17	11
13F(3). PERFORM FUNCTIONAL CHECKOUT				
T606 BENCH CHECK RADAR RECORDING CAMERA SYSTEMS	8	8	7	6

TABLE 19

TASKS PERFORMED BY MORE THAN 20 PERCENT CRITERION GROUP MEMBERS NOT MATCHED TO AFSC 455X0B STS

TASKS		PERCENT MEMBERS PERFORMING			
		1ST JOB	1ST ENL	5-LVL	7-LVL
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	91	89	82	56
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	86	77	70	53
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	84	81	78	56
F240	READ OR INTERPRET SCHEMATICS	78	76	76	60
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	78	75	70	44
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	77	78	72	56
F212	PACK OR UNPACK PHOTO-SENSOR SYSTEM EQUIPMENT	77	76	69	50
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	76	73	72	65
F292	SAFETY-WIRE EQUIPMENT	75	71	66	45
F205	INVENTORY FLIGHTLINE CTKs	73	75	77	57
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	72	72	71	48
F241	READ OR INTERPRET WIRING DIAGRAMS	72	71	70	60
F254	REMOVE OR REPLACE COCKPIT CONTROL PANELS	72	73	70	44
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	71	68	70	70
G311	POSITION AGE TO AIRCRAFT	67	70	66	49
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	66	70	68	56
G310	PERFORM VOLTAGE CHECKS	66	60	62	43
F223	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON PHOTO-SENSOR SYSTEMS	63	64	63	41
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	61	72	74	62
E104	COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	59	58	62	67
F238	READ OR INTERPRET BLOCK DIAGRAMS	59	58	63	50
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	56	66	67	44
T656	UPLOAD OR DOWNLOAD FILM IN MAGAZINES USING DARKROOM PROCEDURES	55	42	36	30
E121	COMPLETE EQUIPMENT STATUS TAGS	53	58	61	57
E118	COMPLETE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	51	52	54	39
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	51	60	61	50
V680	OPERATIONALLY CHECK AVTRs ON AIRCRAFT	50	59	55	38
F156	ALIGN OR ADJUST COCKPIT CONTROL PANELS	49	46	37	19
F220	PERFORM HIGH RELIABILITY SOLDERING	48	59	60	35

Photo-Sensor Maintenance Course, or FTD courses on the individual equipment items. They, therefore, do not need to be included in the entry-level electronics course.

Plans of Instruction (POI)

The same 3450th Technical Training Group personnel also matched inventory tasks to learning objectives of the A- and B-shred Photo-Sensors Maintenance Plans of Instruction (POI), dated September 1988 and March 1988, respectively. A computer product was created for each POI listing learning objectives, tasks matched, and percent first-job and first-enlistment members performing. Learning objectives with tasks matched were reviewed using criteria found in ATCR 55-22, Attachment 1 (February 1989). Any objective matched to tasks performed by less than 30 percent first-job or first-enlistment members is considered unsupported and should be taught by OJT, unless there is sufficient justification (i.e., criticality) to keep it in the entry-level course.

A-shred POI. Blocks I1 through II8 cover introductory materials and were not reviewed, while blocks II9 through XII2 deal with technical topics and were reviewed. Many of the technical learning objectives in this POI require knowledge rather than performance and could not be matched to inventory tasks. All learning objectives that had tasks matched were supported, with the exception of objectives X2 and XI1, which deal with the PAVE SPIKE system. This equipment is no longer maintained and survey data suggest it should no longer be taught in the entry-level course. All unsupported objectives, with matched tasks and percent first-job and first-enlistment personnel performing, are listed in Appendix B, Table B4.

There are also a number of tasks performed by more than 30 percent first-job or first-enlistment personnel that are not matched to the POI (see Appendix B, Table B5). These deal with both flightline and in-shop maintenance functions. School personnel need to review these tasks to determine if they suggest materials that should be included in the POI.

B-shred POI. Blocks I1 through II7 cover introductory materials and were not reviewed, while blocks II8 through XIII, dealing with technical topics, were. Using the criteria set forth in ATCR 52-22, all but four objectives matched to tasks were supported. The unsupported objectives are: VIIe - Remove and replace a focal plane shutter, VII2c - Perform a functional checkout of a KS-74 camera system, IX1b - Perform a functional checkout on an AS/ASQ-154 Digital Data Inserter, and IX1b - Perform a functional checkout of an AS/ASQ-154 Signal Data Converter. These objectives and survey data are listed in Table 20. School personnel and subject-matter experts should review these unmatched objectives to ensure they are appropriate for the POI.

There are also a number of tasks performed by more than 30 percent of first-job or first-enlistment B-shred personnel that were not matched to the POI (see Table 21). Most of these are the same tasks that were not matched to the STS and are general maintenance types of tasks. School personnel and subject-matter experts should review these to see if they suggest topics that should be included.

TABLE 20

UNSUPPORTED AFSC 455X0B POI OBJECTIVES

		PERCENT MEMBERS PERFORMING	
		1ST JOB	1ST ENL
VI1e.	GIVEN A KS-87 CAMERA BODY, TO 10A1-5-29-2 AND NECESSARY TOOLS, AS A TEAM MEMBER REMOVE AND REPLACE THE FOCAL PLANE SHUTTER		
T650	REMOVE AND REPLACE SHUTTER ASSEMBLIES	18	17
VII2c.	GIVEN A KS-74 RADAR RECORDING CAMERA SYSTEM, TO 10A1-4-15-22 AND NECESSARY TEST EQUIPMENT, AS A TEAM MEMBER PERFORM A FUNCTIONAL CHECKOUT		
T606	BENCH CHECK RADAR RECORDING CAMERA SYSTEMS	8	8
IX1b.	GIVEN TO 10A10-7-2, ASSOCIATED TEST EQUIPMENT AND AN AS/ASQ-154 DIGITAL DATA INSERTER, PERFORM THE FUNCTIONAL CHECKOUT		
G304	ALIGN OR ADJUST HIGH VOLTAGE POWER SUPPLY COMPONENTS	22	24
S568	ALIGN OR ADJUST DIGITAL DATA INSERTER (DDI)	19	11
S566	ALIGN OR ADJUST DATA DISPLAY SYSTEM SRUs	12	7
S570	BENCH CHECK DATA DISPLAY SYSTEMS	11	9
IX1b.	GIVEN TO 10A10-7-2 AND ASSOCIATED TEST EQUIPMENT, AS A TEAM MEMBER USE CRT SAFETY PRECAUTIONS TO PERFORM THE FUNCTIONAL CHECKOUT OF THE AS/ASQ-154 SIGNAL DATA CONVERTER		
G304	ALIGN OR ADJUST HIGH VOLTAGE POWER SUPPLY COMPONENTS	22	24
F178	ALIGN OR ADJUST SIGNAL GENERATORS	17	23
S566	ALIGN OR ADJUST DATA DISPLAY SYSTEM SRUs	12	7

TABLE 21

TASKS PERFORMED BY MORE THAN 30 PERCENT CRITERION GROUPS NOT MATCHED TO 3ABR45530B POI

TASKS NOT REFERENCED		PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	91	89
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	86	77
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	84	81
F240	READ OR INTERPRET SCHEMATICS	78	76
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	78	75
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	77	78
F212	PACK OR UNPACK PHOTO-SENSOR SYSTEM EQUIPMENT	77	76
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	76	73
F193	CLEAN MIRRORS OR LENS	76	71
F292	SAFETY-WIRE EQUIPMENT	75	71
F205	INVENTORY FLIGHTLINE CTKs	73	75
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	72	72
F241	READ OR INTERPRET WIRING DIAGRAMS	72	71
F254	REMOVE OR REPLACE COCKPIT CONTROL PANELS	72	73
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	71	68
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	66	70
G310	PERFORM VOLTAGE CHECKS	66	60
F233	PURGE PHOTO-SENSOR SYSTEMS USING CARBON DIOXIDE	63	64
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	61	72
E104	COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	59	58
F238	READ OR INTERPRET BLOCK DIAGRAMS	59	58
F237	PURGE PHOTO-SENSOR SYSTEMS USING NITROGEN	56	46
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	56	66
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	54	66
E121	COMPLETE EQUIPMENT STATUS TAGS	53	58
F293	SALVAGE WASTE FILM	52	42
E118	COMPLETE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	51	52
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	51	60
V675	BENCH CHECK AIRBORNE VIDEOTAPE RECORDERS (AVTR)	51	62
F199	DON AND DOFF PROTECTIVE CLOTHING, SUCH AS APRONS, GOGGLES, OR GLOVES	50	51
V680	OPERATIONALLY CHECK AVTRs ON AIRCRAFT	50	59
F156	ALIGN OR ADJUST COCKPIT CONTROL PANELS	49	46

Summary

Most matched portions of the STS and POI are supported by survey data using criteria set forth in AFR 8-13/ATC Sup 1 and ATCR 52-22, Atch 1. Training personnel need to review unsupported STS line items and POI objectives, as well as tasks that were not matched to either document.

MAJCOM DIFFERENCES

Survey data show there are differences in the types of aircraft and, therefore, the types of sensor equipment maintained by A-shred members of the different MAJCOMs. Twenty-eight percent of A-shred personnel are assigned to TAC, 23 percent to MAC, 14 percent to USAFE, and 10 percent to SAC. TAC personnel work on fighter aircraft, MAC personnel work on the C-130 and HH-53 helicopter, USAFE personnel work mostly on F-111s and A-10s, while SAC personnel are the ones maintaining sensors on the U-2 and TR-1. Consequently, most TAC personnel maintain PAVE PENNY and TISEO systems; MAC personnel maintain FLIR, low light level TV, PAVE LOW, and laser target designator systems; AFSC 455X0 personnel in USAFE maintain the PAVE TACK system; and SAC personnel maintain systems unique to the U-2 and TR-1.

There are fewer differences between the aircraft and camera systems maintained by B-shred personnel. This is because 51 percent of all B-shred personnel are assigned to TAC, which uses essentially the same aircraft as USAFE, PACAF, and the other commands. SAC, however, is unique with its U-2 and TR-1 aircraft and the special camera systems on these airplanes. Other than the expected differences with SAC, survey data show similar percentages of members in the other MAJCOMs maintaining common camera systems.

School personnel are directed to the Equipment VARSUM products in the Training Extracts, which list the individual equipment items and percentages of all personnel, as well as first-enlistment MAJCOM personnel, who indicated they maintain the equipment items.

JOB SATISFACTION

Respondents were asked to indicate how interested they were in their jobs, if they felt their talents and training were being used, and if they intended to reenlist. Satisfaction indicators for TAFMS groups in the present study were compared to those of members of related AFSCs surveyed in 1989 (Table 22). Overall, indicators are lower for AFSC 455X0 personnel than those expressed by members of related mission equipment maintenance specialties. Fewer first- and second-enlistment AFSC 455X0 personnel find their jobs interesting, feel their talents and training are used, and plan to reenlist than their counterparts in the related AFSCs surveyed in 1989. Career AFSC

TABLE 22

COMPARISON OF JOB SATISFACTION INDICATORS FOR 455X0 TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE (PERCENT MEMBERS RESPONDING)

	1-48 MONTHS TAFMS			49-96 MONTHS TAFMS			97+ MONTHS TAFMS		
	455X0A (N=221)	455X0B (N=292)	COMP SAMPLE (N=2,658)	455X0A (N=76)	455X0B (N=104)	COMP SAMPLE (N=1,930)	455X0A (N=173)	455X0B (N=188)	COMP SAMPLE (N=2,575)
EXPRESSED JOB INTEREST:									
INTERESTING	61	58	76	63	50	75	75	58	77
SO-SO	17	27	15	22	26	16	14	21	14
DULL	22	15	8	13	24	8	12	21	8
PERCEIVED USE OF TALENTS:									
FAIRLY WELL TO GOOD	66	70	85	73	66	85	77	65	84
LITTLE OR NOT AT ALL	33	30	15	26	34	14	23	35	15
PERCEIVED USE OF TRAINING:									
FAIRLY WELL TO GOOD	66	72	88	66	66	83	70	61	82
LITTLE OR NOT AT ALL	33	28	12	33	34	16	30	39	18
REENLISTMENT INTENTIONS:									
WILL REENLIST	53	49	61	74	74	72	76	79	75
WILL NOT REENLIST	47	51	37	26	26	26	14	10	10
WILL RETIRE	0	0	2	0	0	1	10	12	14

* Denotes less than 1 percent

Comparative data were from AFSCs 362X4, 411X2A, 454X0A/B, and 451X4 surveyed in 1989

455X0A personnel, on the other hand, are more like career members of the other AFSCs, while career B-shred personnel remain consistently lower in overall job satisfaction.

Satisfaction indicators for TAFMS groups in the present study were also compared to figures reported in the previous OSRs (Table 23). A-shred personnel find their jobs as interesting as members of the prior OSR, while B-shred personnel are somewhat less satisfied. Members of TAFMS groups in the present study feel their talents and training are used better than before, and more plan to reenlist. Overall, satisfaction indicators have remained fairly stable over the years.

Satisfaction indicators for members of the various jobs are shown in Table 24. Most respondents find their work interesting, except Resident Instructors and those with the Strategic Camera Maintenance job. Members with these two jobs report the lowest job interest, while a higher percentage of those in the Flightline Pave Tack Maintenance job feel their job is dull. Fewer Instructors, Flightline Pave Tack Maintenance, and Strategic Camera Maintenance personnel feel their talents are being used. TISEO Maintenance personnel have lower reenlistment intentions than members of any other job. Overall, personnel with the Flightline Pave Tack and Strategic Camera Maintenance jobs have the lowest job satisfaction indicators.

Summary

Satisfaction of AFSC 455X0 personnel and members of similar AFSCs surveyed in 1988 were compared, and data show AFSC 455X0 personnel have somewhat lower satisfaction indicators than their counterparts in other AFSCs. Overall satisfaction has remained fairly stable over the years. Members of most jobs find their work interesting, feel their talents and training are used, and plan to reenlist, with the exception of those with the Flightline Tactical Camera and Strategic Camera Maintenance jobs. Resident instructors also find their job less than interesting and feel their talents are not used as well as they could be.

IMPLICATIONS

Overall, there have been few changes in the structure of the career ladder, even with recent equipment changes. The jobs performed are mostly related to shred-specific equipment. Personnel progress typically through the career ladder, with 3- and 5-skill level members performing mainly technical tasks and 7-skill level members performing a mixture of technical and supervisory tasks. Survey data show the AFR 39-1 Specialty Descriptions will need to be changed somewhat to reflect changes in equipment maintained.

Job satisfaction indicators for this specialty are somewhat lower than those of related AFSCs surveyed in 1988. Overall satisfaction has remained fairly stable over the years. Members of most jobs report they find their job

TABLE 23

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 455X0
TAFMS GROUPS IN CURRENT AND PREVIOUS STUDIES
(PERCENT MEMBERS RESPONDING)

	1-48 MONTHS TAFMS			49-96 MONTHS TAFMS			97+ MONTHS TAFMS		
	1990 455X0A (N=221)	1990 455X0B (N=292)	PRIOR (N=679)	1990 455X0A (N=76)	1990 455X0B (N=104)	PRIOR (N=197)	1990 455X0A (N=173)	1990 455X0B (N=188)	PRIOR (N=260)
EXPRESSED JOB INTEREST:									
INTERESTING	61	58	62	63	50	64	75	58	74
SO-SO	17	27	28	22	26	19	14	21	14
DULL	22	15	19	13	24	17	12	21	12
PERCEIVED USE OF TALENTS:									
FAIRLY WELL TO GOOD	66	70	56	73	66	64	77	65	73
LITTLE OR NOT AT ALL	33	30	44	26	34	36	23	35	27
PERCEIVED USE OF TRAINING:									
FAIRLY WELL TO GOOD	66	72	61	66	66	59	70	61	68
LITTLE OR NOT AT ALL	33	28	39	33	37	71	30	39	32
REENLISTMENT INTENTIONS:									
WILL REENLIST	53	49	47	74	74	58	76	79	77
WILL NOT REENLIST	47	51	53	26	26	42	14	10	23
WILL RETIRE	0	0	#	0	0	#	10	12	#

* Denotes less than 1 percent
\# Data not reported in prior OSRs

TABLE 24

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF 455X0 SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

	ADMIN SUPV (N=155)	INSTR (N=18)	SHOP SUPV (N=36)	TISEO MAINT (N=9)	PAVE PENNY (N=80)	FLIR MAINT (N=98)
EXPRESSED JOB INTEREST:						
INTERESTING	67	39	81	67	55	70
SO-SO	14	33	6	33	29	18
DULL	19	28	14	0	16	11
PERCEIVED USE OF TALENTS:						
FAIRLY WELL TO GOOD	70	50	80	89	67	79
LITTLE OR NOT AT ALL	30	50	19	11	32	21
PERCEIVED USE OF TRAINING:						
FAIRLY WELL TO GOOD	57	72	80	100	57	72
LITTLE TO NOT AT ALL	43	28	19	0	42	28
REENLISTMENT INTENTIONS:						
WILL REENLIST	75	78	67	33	60	61
WILL NOT REENLIST	10	17	17	67	40	38
WILL RETIRE	15	6	17	0	0	1

TABLE 24 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF 455X0 SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

	SHOP PAVE TACK (N=81)	LINE PAVE TACK (N=22)	VCR COCKPIT CAMERA (N=219)	SHOP TACT CAMERA (N=18)	LINE TACT CAMERA (N=36)	STRAT CAMERA (N=9)
EXPRESSED JOB INTEREST:						
INTERESTING	86	50	62	66	54	38
SO-SO	7	5	24	27	31	40
DULL	5	45	17	7	15	23
PERCEIVED USE OF TALENTS:						
FAIRLY WELL TO GOOD	85	50	70	92	65	62
LITTLE OR NOT AT ALL	14	50	28	8	35	38
PERCEIVED USE OF TRAINING:						
FAIRLY WELL TO GOOD	92	45	75	92	65	48
LITTLE TO NOT AT ALL	7	55	25	8	35	52
REENLISTMENT INTENTIONS:						
WILL REENLIST	68	73	63	68	64	54
WILL NOT REENLIST	30	27	36	32	36	44
WILL RETIRE	1	0	0	0	0	2

interesting and feel their talents and training are used. Members with the Flightline Pave Tack and Strategic Camera Maintenance jobs, however, have the lowest satisfaction indicators.

Most of the STS and POI for each shred are supported by survey data. There are a number of topics covered in the Electronic Fundamentals/ Applications STSs that are not supported by EPI data. School personnel need to review these unsupported topics to determine if they should continue to be retained in the resident courses.

APPENDIX A

SELECTED REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS

TABLE A1

ADMINISTRATIVE AND SUPERVISORY CLUSTER (STG021)

NUMBER IN GROUP: 155
PERCENT OF SAMPLE: 15%

AVERAGE TIME IN JOB: 25 MONTHS
AVERAGE TAFMS: 171 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	79
C64	PERFORM SELF-INSPECTIONS	75
C69	WRITE EPRs	75
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	71
C56	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	68
A12	ESTABLISH WORK PRIORITIES	67
A2	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	65
A16	PLAN WORK ASSIGNMENTS	62
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	61
A1	CONDUCT MEETINGS, SUCH AS STAFF MEETINGS, COUNCIL MEETINGS, OR BOARD MEETINGS	60
A3	DETERMINE PERSONNEL REQUIREMENTS	59
A4	DEVELOP ORGANIZATIONAL CHARTS OR STATUS BOARDS	59
D80	DETERMINE TRAINING REQUIREMENTS	58
C65	PROVIDE TECHNICAL ASSISTANCE FOR JOB-RELATED MATTERS	57
A6	DRAFT OR REVISE DUTY ROSTERS	56
E145	REVIEW FLYING SCHEDULES	55
C66	REVIEW OR INDORSE ENLISTED PERFORMANCE REPORTS (EPR)	55
A19	SCHEDULE LEAVES OR TEMPORARY DUTY (TDY) ASSIGNMENTS	55
E127	INPUT DATA USING COMPUTERS	54
A11	ESTABLISH WORK METHODS OR PROCEDURES	54
C55	EVALUATE INSPECTION REPORTS OR PROCEDURES	53
B24	CONDUCT FOLLOWUP ACTION ON SUPPLY OR WORK REQUESTS	52
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	52
A17	PREPARE BRIEFINGS	51
B30	DIRECT OR PARTICIPATE IN MOBILITY EXERCISES	50
C50	ANALYZE WORKLOAD REQUIREMENTS	48
E147	REVIEW PROPERTY CUSTODY AUTHORIZATION/CUSTODY RECEIPT LISTINGS (CA/CRL)	47
E148	REVIEW QUALITY ASSURANCE EVALUATIONS	45
E143	REVIEW DATA AUTOMATED SUPPLY LISTINGS	43

TABLE A1(A)

SUPPLY JOB (STG108)

NUMBER IN GROUP: 7 AVERAGE TIME IN JOB: 29 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 114 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	100
E143	REVIEW DATA AUTOMATED SUPPLY LISTINGS	86
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	86
E152	VERIFY AWAITING PARTS (AWP) LISTINGS	86
E127	INPUT DATA USING COMPUTERS	86
B24	CONDUCT FOLLOW-UP ACTION ON SUPPLY OR WORK REQUESTS	71
E95	ANNOTATE AF FORMS 2413 (SUPPLY CONTROL LOG)	71
A2	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	71
E128	LOCATE INFORMATION IN COMMERCIAL PUBLICATIONS	71
E121	COMPLETE EQUIPMENT STATUS TAGS	71
C69	WRITE EPRs	71
E142	REVIEW DAILY DOCUMENT REGISTERS	57
F212	PACK OR UNPACK PHOTO-SENSOR SYSTEM EQUIPMENT	57
E99	ANNOTATE DUE-IN-FROM-MAINTENANCE (DIFM) LOGS	57
D76	CONDUCT OJT	57
E120	COMPLETE DD FORMS 1348-6 (DOD SINGLE LINE ITEM REQUISITION SYSTEM DOCUMENT)	57
E97	ANNOTATE AF FORMS 451 (REQUEST FOR PACKAGING SERVICE)	57
E104	COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	57
A4	DEVELOP ORGANIZATIONAL CHARTS OR STATUS BOARDS	57
E141	REVIEW AFTO FORMS 349	57
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	57
E119	COMPLETE DD FORMS 1348-1 (DOD SINGLE LINE ITEM RELEASE/ RECEIPT	43
E147	REVIEW PROPERTY CUSTODY AUTHORIZATION/CUSTODY RECEIPT LISTINGS	43
E101	ANNOTATE REPARABLE PART CYCLE (RPC) LOGS	43
D85	EVALUATE TRAINING PROGRESS OF TRAINEES	43
B42	SUPERVISE APPRENTICE RECONNAISSANCE/ELECTRO-OPTICAL SENSOR SPECIALISTS	43
E118	COMPLETE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	43
B30	DIRECT OR PARTICIPATE IN MOBILITY EXERCISES	43
E131	MAINTAIN FILES OF MAINTENANCE RECORDS	29

TABLE A1(B)

RESOURCE ADVISOR JOB (STG069)

NUMBER IN GROUP: 10 AVERAGE TIME IN JOB: 35 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 166 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
E110	COMPLETE AF FORMS 9 (REQUEST FOR PURCHASE)	100
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	90
E120	COMPLETE DD FORMS 1348-6 (DOD SINGLE LINE ITEM REQUISITION SYSTEM DOCUMENT)	80
E104	COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	80
B24	CONDUCT FOLLOW-UP ACTION ON SUPPLY OR WORK REQUESTS	70
E142	REVIEW DAILY DOCUMENT REGISTERS	70
E109	COMPLETE AF FORMS 601 (EQUIPMENT ACTION REQUEST)	70
C64	PERFORM SELF-INSPECTIONS	70
E143	REVIEW DATA AUTOMATED SUPPLY LISTINGS	60
C63	PERFORM SECURITY INSPECTIONS	60
A2	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	60
B30	DIRECT OR PARTICIPATE IN MOBILITY EXERCISES	60
E139	REVIEW AF FORMS 9	60
E127	INPUT DATA USING COMPUTERS	50
E147	REVIEW PROPERTY CUSTODY AUTHORIZATION/CUSTODY RECEIPT LISTINGS (CA/CRL)	50
C53	EVALUATE BUDGET REQUIREMENTS	50
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	50
A16	PLAN WORK ASSIGNMENTS	50
A8	ESTABLISH PERFORMANCE STANDARDS FOR PERSONNEL	50
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	50
E138	REVIEW AF FORMS 332 (BCE WORK REQUEST)	40
E103	COMPLETE AF FORMS 1135 (BCE REAL PROPERTY MAINTENANCE REQUEST)	40
A5	DRAFT BUDGET REQUIREMENTS	40
E108	COMPLETE AF FORMS 2519 (ALL PURPOSE CHECKLIST)	40
A6	DRAFT OR REVISE DUTY ROSTERS	40

TABLE A1(C)

PRODUCTION SUPERVISOR JOB (STG116)

NUMBER IN GROUP: 8 AVERAGE TIME IN JOB: 18 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 215 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
B25	COORDINATE ACCESSIBILITY OF AIRCRAFT WITH CREW CHIEFS OR APPROPRIATE UNITS	100
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	88
B27	COORDINATE MISSION REQUIREMENTS WITH APPROPRIATE UNITS	88
C69	WRITE EPRs	88
B29	COORDINATE SYSTEM MALFUNCTIONS WITH APPROPRIATE UNITS	75
E145	REVIEW FLYING SCHEDULES	75
E127	INPUT DATA USING COMPUTERS	75
A12	ESTABLISH WORK PRIORITIES	75
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	75
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	75
B45	SUPERVISE MILITARY PERSONNEL WITH AFSC OTHER THAN 455X0	63
B31	DISPATCH MAINTENANCE CREWS	63
A17	PREPARE BRIEFINGS	63
B30	DIRECT OR PARTICIPATE IN MOBILITY EXERCISES	63
A1	CONDUCT MEETINGS, SUCH AS STAFF MEETINGS, COUNCIL MEETINGS, OR BOARD MEETINGS	63
C64	PERFORM SELF-INSPECTIONS	63
C66	REVIEW OR INDORSE ENLISTED PERFORMANCE REPORTS (EPR)	63
E117	COMPLETE AFTO FORMS 781K (AEROSPACE VEHICLE INSP, ENGINE DATA, CALENDAR ITEM INSP, AND DELAYED DISCREPANCY DOC)	63
F210	OPERATE DISPATCH VEHICLES	50
B49	SUPERVISE TACTICAL/RECONNAISSANCE ELECTRONIC SENSOR TECHNICIANS (AFSC 45570A)	50
E141	REVIEW AFTO FORMS 349	50
B48	SUPERVISE TACTICAL/RECONNAISSANCE ELECTRONIC SENSOR SPECIALISTS (AFSC 45550A)	50
A6	DRAFT OR REVISE DUTY ROSTERS	50
C50	ANALYZE WORKLOAD REQUIREMENTS	38
C56	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	38

TABLE A1(D)

SHIFT SUPERVISOR JOB (STG109)

NUMBER IN GROUP: 16
PERCENT OF SAMPLE: 2%

AVERAGE TIME IN JOB: 27 MONTHS
AVERAGE TAFMS: 161 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
C69	WRITE EPRs	100
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	100
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	94
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	94
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	94
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	94
A16	PLAN WORK ASSIGNMENTS	88
B46	SUPERVISE RECONNAISSANCE/ELECTRO-OPTICAL SENSOR SPECIALISTS (AFSC 45550B)	81
B31	DISPATCH MAINTENANCE CREWS	81
F205	INVENTORY FLIGHTLINE CTKs	81
A12	ESTABLISH WORK PRIORITIES	81
C64	PERFORM SELF-INSPECTIONS	81
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	81
B42	SUPERVISE APPRENTICE RECONNAISSANCE/ELECTRO-OPTICAL SENSOR SPECIALISTS (AFSC 45530B)	75
E145	REVIEW FLYING SCHEDULES	75
B30	DIRECT OR PARTICIPATE IN MOBILITY EXERCISES	75
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	75
F292	SAFETY-WIRE EQUIPMENT	75
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	75
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	69
E141	REVIEW AFTO FORMS 349	69
C56	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	69
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	69
E96	ANNOTATE AF FORMS 2430 (SPECIALIST DISPATCH CONTROL LOG)	56
D87	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	56
F210	OPERATE DISPATCH VEHICLES	50
B47	SUPERVISE RECONNAISSANCE/ELECTRO-OPTICAL SENSOR TECHNICIANS (AFSC 45570B)	50

TABLE A1(E)

NCOIC JOB (STG106)

NUMBER IN GROUP: 70
PERCENT OF SAMPLE: 6%

AVERAGE TIME IN JOB: 27 MONTHS
AVERAGE TAFMS: 195 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
C69	WRITE EPRs	99
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	97
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	96
C64	PERFORM SELF-INSPECTIONS	96
A12	ESTABLISH WORK PRIORITIES	91
C56	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	90
C66	REVIEW OR INDORSE ENLISTED PERFORMANCE REPORTS (EPR)	89
A8	ESTABLISH PERFORMANCE STANDARDS FOR PERSONNEL	87
A19	SCHEDULE LEAVES OR TEMPORARY DUTY (TDY) ASSIGNMENTS	87
D80	DETERMINE TRAINING REQUIREMENTS	86
A6	DRAFT OR REVISE DUTY ROSTERS	84
A16	PLAN WORK ASSIGNMENTS	83
A3	DETERMINE PERSONNEL REQUIREMENTS	83
A2	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	81
E145	REVIEW FLYING SCHEDULES	79
C50	ANALYZE WORKLOAD REQUIREMENTS	79
C55	EVALUATE INSPECTION REPORTS OR PROCEDURES	79
C54	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	79
B22	ASSIGN PERSONNEL TO DUTY POSITIONS	79
C65	PROVIDE TECHNICAL ASSISTANCE FOR JOB-RELATED MATTERS	77
A1	CONDUCT MEETINGS, SUCH AS STAFF MEETINGS, COUNCIL MEETINGS, OR BOARD MEETINGS	77
A11	ESTABLISH WORK METHODS OR PROCEDURES	76
E120	COMPLETE DD FORMS 1348-6 (DOD SINGLE LINE ITEM REQUISITION SYSTEM DOCUMENT)	74
E148	REVIEW QUALITY ASSURANCE EVALUATIONS	71
E147	REVIEW PROPERTY CUSTODY AUTHORIZATION/CUSTODY RECEIPT LISTINGS (CA/CRL)	70
E127	INPUT DATA USING COMPUTERS	61
B47	SUPERVISE RECONNAISSANCE/ELECTRO-OPTICAL SENSOR TECHNICIANS (AFSC 45570B)	57

TABLE A1(F)

TRAINING DEVELOPMENT JOB (STG181)

NUMBER IN GROUP: 6 AVERAGE TIME IN JOB: 40 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 132 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
D81	DEVELOP RESIDENT COURSE CURRICULUM MATERIALS, SUCH AS PLANS OF INSTRUCTION OR SPECIALTY TRAINING STANDARDS	100
D84	EVALUATE TRAINING METHODS OR TECHNIQUES	100
D80	DETERMINE TRAINING REQUIREMENTS	100
D82	DEVELOP TESTS	100
D87	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	100
D85	EVALUATE TRAINING PROGRESS OF TRAINEES	100
D79	CONSTRUCT TRAINING AIDS, SUCH AS SLIDES OR CHARTS	100
A2	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	100
D73	ADMINISTER TESTS	83
D92	SCORE TESTS	83
D77	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	83
D90	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	83
D86	MAINTAIN STUDY REFERENCE FILES	83
B24	CONDUCT FOLLOW-UP ACTION ON SUPPLY OR WORK REQUESTS	83
D78	CONDUCT TRAINING CONFERENCES OR BRIEFINGS	83
D91	REVIEW TRAINING REPORTS	83
D76	CONDUCT OJT	83
C56	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	83
A11	ESTABLISH WORK METHODS OR PROCEDURES	83
A8	ESTABLISH PERFORMANCE STANDARDS FOR PERSONNEL	83
A13	PLAN LAYOUT OF FACILITIES OR WORK AREAS	67
D83	EVALUATE INSTRUCTOR PERFORMANCE	67
C63	PERFORM SECURITY INSPECTIONS	67
B48	SUPERVISE TACTICAL/RECONNAISSANCE ELECTRONIC SENSOR SPECIALISTS (AFSC 45550A)	67
A12	ESTABLISH WORK PRIORITIES	67
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	67
B43	SUPERVISE APPRENTICE TACTICAL/RECONNAISSANCE ELECTRONIC SENSOR SPECIALISTS (AFSC 45530A)	67
A16	PLAN WORK ASSIGNMENTS	67
C65	PROVIDE TECHNICAL ASSISTANCE FOR JOB-RELATED MATTERS	67

TABLE A1(G)

MOBILITY NCO JOB (STG098)

NUMBER IN GROUP: 6 AVERAGE TIME IN JOB: 20 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 193 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
A19	SCHEDULE LEAVES OR TEMPORARY DUTY (TDY) ASSIGNMENTS	100
A17	PREPARE BRIEFINGS	100
A2	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	100
A3	DETERMINE PERSONNEL REQUIREMENTS	100
B30	DIRECT OR PARTICIPATE IN MOBILITY EXERCISES	83
A1	CONDUCT MEETINGS, SUCH AS STAFF MEETINGS, COUNCIL MEETINGS, OR BOARD MEETINGS	83
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	83
D80	DETERMINE TRAINING REQUIREMENTS	83
C72	WRITE STAFF STUDIES OR SPECIAL REPORTS	67
E147	REVIEW PROPERTY CUSTODY AUTHORIZATION/CUSTODY RECEIPT LISTINGS (CA/CRL)	67
E127	INPUT DATA USING COMPUTERS	67
A9	ESTABLISH PROCEDURAL GUIDELINES, SUCH AS OPERATING INSTRUCTIONS (OI) OR STANDARD OPERATING PROCEDURES (SOP)	67
A4	DEVELOP ORGANIZATIONAL CHARTS OR STATUS BOARDS	67
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	67
B27	COORDINATE MISSION REQUIREMENTS WITH APPROPRIATE UNITS	50
B28	COORDINATE MODIFICATION OF AIRCRAFT WITH MAINTENANCE UNITS	50
C55	EVALUATE INSPECTION REPORTS OR PROCEDURES	50
C65	PROVIDE TECHNICAL ASSISTANCE FOR JOB-RELATED MATTERS	50
C64	PERFORM SELF-INSPECTIONS	50
A21	WRITE OR REVISE UNIT EMERGENCY OR DISASTER PLANS	50
E130	MAINTAIN FILES OF CLASSIFIED MATERIAL	50
A12	ESTABLISH WORK PRIORITIES	50
A16	PLAN WORK ASSIGNMENTS	50
A13	PLAN LAYOUT OF FACILITIES OR WORK AREAS	50
D93	SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	50
E135	REVIEW AF FORMS 2514 (DEPLOYMENT LOAD LIST)	33
E136	REVIEW AF FORMS 2518 (DEPLOYMENT PACKING LIST)	33
B33	IMPLEMENT COST-REDUCTION PROGRAMS	33
C58	EVALUATE SUGGESTIONS	33

TABLE A1(H)

QUALITY CONTROL JOB (STG098)

NUMBER IN GROUP: 9 AVERAGE TIME IN JOB: 13 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 120 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFOPMING
E148	REVIEW QUALITY ASSURANCE EVALUATIONS	100
E100	ANNOTATE QUALITY ASSURANCE EVALUATIONS	100
C56	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	89
C65	PROVIDE TECHNICAL ASSISTANCE FOR JOB-RELATED MATTERS	89
C55	EVALUATE INSPECTION REPORTS OR PROCEDURES	89
C59	INVESTIGATE ACCIDENTS OR INCIDENTS	89
C58	EVALUATE SUGGESTIONS	78
E113	COMPLETE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	78
C71	WRITE INSPECTION REPORTS	67
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	67
C64	PERFORM SELF-INSPECTIONS	67
E145	REVIEW FLYING SCHEDULES	67
E94	ANNOTATE AF FORMS 1800 (OPERATOR'S INSPECTION GUIDE AND TROUBLE REPORT (GENERAL PURPOSE VEHICLE))	67
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	44
F241	READ OR INTERPRET WIRING DIAGRAMS	44
E134	REVIEW AF FORMS 2420 (QUALITY CONTROL INSPECTION SUMMARY)	44
C52	EVALUATE ALERT OR EMERGENCY PROCEDURES	44
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	44
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	44
E104	COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	44
E127	INPUT DATA USING COMPUTERS	33
D84	EVALUATE TRAINING METHODS OR TECHNIQUES	33
F240	READ OR INTERPRET SCHEMATICS	33

TABLE A2

RESIDENT INSTRUCTOR JOB (STG069)

NUMBER IN GROUP: 18
PERCENT OF SAMPLE: 2%

AVERAGE TIME IN JOB: 27 MONTHS
AVERAGE TAFMS: 104 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
D82	DEVELOP TESTS	94
D73	ADMINISTER TESTS	94
D92	SCORE TESTS	94
D79	CONSTRUCT TRAINING AIDS, SUCH AS SLIDES OR CHARTS	78
D77	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	67
D81	DEVELOP RESIDENT COURSE CURRICULUM MATERIALS, SUCH AS PLANS OF INSTRUCTION OR SPECIALTY TRAINING STANDARDS	67
D87	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	50
D85	EVALUATE TRAINING PROGRESS OF TRAINEES	44
D80	DETERMINE TRAINING REQUIREMENTS	44
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	44
F240	READ OR INTERPRET SCHEMATICS	39
E104	COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	39
E102	ANNOTATE SECURITY LOGS	33
A2	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	33
G306	BENCH CHECK POWER SUPPLIES	33
R555	BENCH CHECK AAD-5 SYSTEMS	33
D78	CONDUCT TRAINING CONFERENCES OR BRIEFINGS	28
D90	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	28
F241	READ OR INTERPRET WIRING DIAGRAMS	28

TABLE A3

SHOP SUPERVISOR JOB (STG130)

NUMBER IN GROUP: 36
PERCENT OF SAMPLE: 4%

AVERAGE TIME IN JOB: 42 MONTHS
AVERAGE TAFMS: 143 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	97
A12	ESTABLISH WORK PRIORITIES	94
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	94
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	94
C65	PROVIDE TECHNICAL ASSISTANCE FOR JOB-RELATED MATTERS	92
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	92
C51	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	92
F238	READ OR INTERPRET BLOCK DIAGRAMS	92
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	92
E104	COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	92
E114	COMPLETE AFTO FORMS 244 (INDUSTRIAL/SUPPORT EQUIPMENT RECORD)	89
F240	READ OR INTERPRET SCHEMATICS	89
F241	READ OR INTERPRET WIRING DIAGRAMS	89
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	89
G310	PERFORM VOLTAGE CHECKS	89
E127	INPUT DATA USING COMPUTERS	86
F301	TROUBLESHOOT TEST EQUIPMENT	86
F300	TROUBLESHOOT SUPPORT EQUIPMENT	86
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	86
E113	COMPLETE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	86
F224	PERFORM PMI ON SUPPORT EQUIPMENT	86
A2	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	86
D76	CONDUCT OJT	83
C56	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	83
E128	LOCATE INFORMATION IN COMMERCIAL PUBLICATIONS	83
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	83
F161	ALIGN OR ADJUST ELECTRONIC COMPONENTS ON CIRCUIT CARDS	83
E145	REVIEW FLYING SCHEDULES	81
E121	COMPLETE EQUIPMENT STATUS TAGS	81
E118	COMPLETE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	81
C64	PERFORM SELF-INSPECTIONS	81
E152	VERIFY AWAITING PARTS (AWP) LISTINGS	81
C69	WRITE EPRs	78
E132	MAINTAIN TOs OR COMMERCIAL PUBLICATIONS	78
G306	BENCH CHECK POWER SUPPLIES	86

TABLE A4

TISEO MAINTENANCE JOB (STG172)

NUMBER IN GROUP: 9 AVERAGE TIME IN JOB: 25 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 37 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
0454	ALIGN OR ADJUST CONVERTER STABILIZATION GENERATOR GROUPS (CSGG)	100
0456	BENCH CHECK TISEO SYSTEMS	100
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	100
0455	ALIGN OR ADJUST TARGET IDENTIFICATION SYSTEM ELECTRO-OPTICAL (TISEO) SRUs	100
E118	COMPLETE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	100
F237	PURGE PHOTO-SENSOR SYSTEMS USING NITROGEN	100
F292	SAFETY-WIRE EQUIPMENT	100
F238	READ OR INTERPRET BLOCK DIAGRAMS	100
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	89
0460	REMOVE OR REPLACE TISEO SRUs	89
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	89
F240	READ OR INTERPRET SCHEMATICS	89
F231	PERFORM WAVEFORM ADJUSTMENTS	89
G306	BENCH CHECK POWER SUPPLIES	89
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	89
F215	PERFORM CONTINUITY CHECKS ON TEST SETS	89
0461	REMOVE OR REPLACE TISEO VIDEO PROCESSORS	89
F181	ALIGN OR ADJUST VIDEO PROCESSORS	78
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	78
G305	ALIGN OR ADJUST LOW VOLTAGE POWER SUPPLY COMPONENTS	78
F199	DON AND DOFF PROTECTIVE CLOTHING, SUCH AS APRONS, GOGGLES, OR GLOVES	78
F219	PERFORM CORROSION CONTROL ON TEST EQUIPMENT	78
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	67
E121	COMPLETE EQUIPMENT STATUS TAGS	67
F232	PRESSURIZE PHOTO-SENSOR SYSTEMS	67
F303	VISUALLY INSPECT SYSTEMS FOR PRESSURIZATION LEAKS	67
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	56
F205	INVENTORY FLIGHTLINE CTKs	56
F161	ALIGN OR ADJUST ELECTRONIC COMPONENTS ON CIRCUIT CARDS	56

TABLE A5

PAVE PENNY MAINTENANCE JOB (STG228)

NUMBER IN GROUP: 28
PERCENT OF SAMPLE: 3%

AVERAGE TIME IN JOB: 26 MONTHS
AVERAGE TAFMS: 61 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
P471	PERFORM BIT ON PAVE PENNY SYSTEMS	99
P472	REMOVE OR REPLACE ACDs	98
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	96
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	95
P477	UPLOAD OR DOWNLOAD PAVE PENNY PODS	94
P469	OPERATIONALLY CHECK PAVE PENNY SYSTEMS ON AIRCRAFT	94
P476	REMOVE OR REPLACE TISL CONTROLS	94
P467	BENCH CHECK PAVE PENNY SYSTEMS	93
P466	ASSEMBLE OR DISASSEMBLE PAVE PENNY PODS	93
P464	ALIGN OR ADJUST PAVE PENNY SRUs	91
P463	ALIGN OR ADJUST ADAPTER CONTROL DETECTORS (ACD)	91
P475	REMOVE OR REPLACE PAVE PENNY SRUs	91
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	91
P473	REMOVE OR REPLACE AIRCRAFT PYLONS OR AIRCRAFT/POD ADAPTERS	91
P465	ALIGN OR ADJUST TARGET IDENTIFYING SET LASER (TISL) CONTROLS	91
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	90
F237	PURGE PHOTO-SENSOR SYSTEMS USING NITROGEN	90
F240	READ OR INTERPRET SCHEMATICS	89
F264	REMOVE OR REPLACE GIMBAL ASSEMBLIES	89
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	89
F205	INVENTORY FLIGHTLINE CTKs	88
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	88
F241	READ OR INTERPRET WIRING DIAGRAMS	86
F165	ALIGN OR ADJUST GIMBALS	86
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	85
F292	SAFETY-WIRE EQUIPMENT	84
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	84
E118	COMPLETE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	83
H328	VISUALLY INSPECT PODS FOR DAMAGE	81
F232	PRESSURIZE PHOTO-SENSOR SYSTEMS	81
V680	OPERATIONALLY CHECK AVTRs ON AIRCRAFT	80
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	80
H327	REMOVE OR REPLACE PODS	75
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	75
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	75

TABLE A6

FLIR MAINTENANCE JOB (STG132)

NUMBER IN GROUP: 98
PERCENT OF SAMPLE: 9%

AVERAGE TIME IN JOB: 25 MONTHS
AVERAGE TAFMS: 65 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	97
F261	REMOVE OR REPLACE ELECTRONIC CONTROL AMPLIFIERS (ECA)	97
F162	ALIGN OR ADJUST ELECTRONIC CONTROL AMPLIFIERS (ECA)	95
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	95
F240	READ OR INTERPRET SCHEMATICS	94
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	94
F167	ALIGN OR ADJUST INFRARED RECEIVERS	93
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	91
F161	ALIGN OR ADJUST ELECTRONIC COMPONENTS ON CIRCUIT CARDS	91
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	91
F241	READ OR INTERPRET WIRING DIAGRAMS	91
F193	CLEAN MIRRORS OR LENS	91
F236	PURGE PHOTO-SENSOR SYSTEMS USING HELIUM	90
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	90
M408	OPERATIONALLY CHECK FLIR SYSTEMS ON AIRCRAFT	89
F260	REMOVE OR REPLACE ELECTRONIC COMPONENTS ON CIRCUIT CARDS	89
F205	INVENTORY FLIGHTLINE CTKs	88
M415	REMOVE OR REPLACE FLIR GROUPS	88
F165	ALIGN OR ADJUST GIMBALS	88
F264	REMOVE OR REPLACE GIMBAL ASSEMBLIES	88
M405	BENCH CHECK FLIR SYSTEMS	87
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	87
F164	ALIGN OR ADJUST GIMBAL POSITION CONTROLS	87
F163	ALIGN OR ADJUST FIELD OF VIEW SWITCHING UNITS	87
M401	ALIGN OR ADJUST FORWARD LOOKING INFRARED RADAR (FLIR) GROUPS	86
M412	REMOVE OR REPLACE AAQ-10 SRUs	82
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	82
F166	ALIGN OR ADJUST INFRARED DETECTOR SETS	82
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	79
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	79
F233	PURGE PHOTO-SENSOR SYSTEMS USING CARBON DIOXIDE	78

TABLE A7

IN-SHOP PAVE TACK MAINTENANCE JOB (STG152)

NUMBER IN GROUP: 81
PERCENT OF SAMPLE: 8%

AVERAGE TIME IN JOB: 30 MONTHS
AVERAGE TAFMS: 63 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
I345	PERFORM BUILT-IN TESTS (BIT) ON PAVE TACK SYSTEMS	99
F240	READ OR INTERPRET SCHEMATICS	97
I342	BORESIGHT PAVE TACK PODS	96
I341	BENCH CHECK PAVE TACK SYSTEMS	96
I334	ALIGN OR ADJUST PAVE TACK SHOP REPLACEABLE UNITS (SRU)	96
F226	PERFORM PROGRAM LOADS USING MEMORY LOAD VERIFIERS (MLV)	96
F241	READ OR INTERPRET WIRING DIAGRAMS	96
F259	REMOVE OR REPLACE DIGITAL COMPUTERS	96
H328	VISUALLY INSPECT PODS FOR DAMAGE	95
I353	REMOVE OR REPLACE PAVE TACK SRUs	95
I335	ALIGN OR ADJUST PITCH INSTRUMENT ASSEMBLIES (PIA)	95
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	95
H324	REMOVE OR REPLACE LASER TRANSMITTERS	94
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	93
I346	PERFORM CONFIDENCE CHECKS ON PAVE TACK PODS	93
F194	CLEAN POD WINDOWS	93
F261	REMOVE OR REPLACE ELECTRONIC CONTROL AMPLIFIERS (ECA)	93
I337	ALIGN OR ADJUST ROLL INSTRUMENT ASSEMBLIES (RIA)	91
I339	ASSEMBLE OR DISASSEMBLE PAVE TACK PODS	90
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	90
H319	ALIGN OR ADJUST LASER TRANSMITTERS	90
F238	READ OR INTERPRET BLOCK DIAGRAMS	89
H318	ALIGN OR ADJUST ENVIRONMENTAL CONTROL UNITS (ECU)	89
F292	SAFETY-WIRE EQUIPMENT	89
F166	ALIGN OR ADJUST INFRARED DETECTOR SETS	86
I354	UPLOAD OR DOWNLOAD PAVE TACK PODS	84
I351	REMOVE OR REPLACE HEAD SECTION COMPONENTS	84
F167	ALIGN OR ADJUST INFRARED RECEIVERS	83
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	83
H327	REMOVE OR REPLACE PODS	77
F161	ALIGN OR ADJUST ELECTRONIC COMPONENTS ON CIRCUIT CARDS	77
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	72

TABLE A8

FLIGHTLINE PAVE TACK MAINTENANCE JOB (STG122)

NUMBER IN GROUP: 22
PERCENT OF SAMPLE: 2%

AVERAGE TIME IN JOB: 23 MONTHS
AVERAGE TAFMS: 81 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	100
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	100
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	95
G311	POSITION AGE TO AIRCRAFT	95
I354	UPLOAD OR DOWNLOAD PAVE TACK PODS	91
H328	VISUALLY INSPECT PODS FOR DAMAGE	91
H329	VISUALLY INSPECT WEAPON BAYS FOR DAMAGE	91
X725	WALK WINGS OR TAILS DURING AIRCRAFT TOWING OPERATIONS	86
F205	INVENTORY FLIGHTLINE CTKs	86
X703	JACK OR LEVEL AIRCRAFT	86
F254	REMOVE OR REPLACE COCKPIT CONTROL PANELS	86
I345	PERFORM BUILT-IN TESTS (BIT) ON PAVE TACK SYSTEMS	82
F226	PERFORM PROGRAM LOADS USING MEMORY LOAD VERIFIERS (MLV)	82
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	82
F241	READ OR INTERPRET WIRING DIAGRAMS	82
F207	LUBRICATE MECHANICAL COMPONENTS	82
F273	REMOVE OR REPLACE LIGHT BULBS, FUSES, OR CIRCUIT BREAKS	82
X704	LAUNCH OR RECOVER AIRCRAFT	77
I344	OPERATIONALLY CHECK PAVE TACK SYSTEMS ON AIRCRAFT	77
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	77
H327	REMOVE OR REPLACE PODS	77
F197	DEBRIEF AIRCREWS	77
X716	SERVICE AIRCRAFT HYDRAULIC SYSTEMS	77
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	77
X709	POSITION OR REMOVE AIRCRAFT CHOCKS OR GROUND SAFETY PIN	73
X702	GROUND AIRCRAFT	73
F210	OPERATE DISPATCH VEHICLES	64
X721	TOW NONPOWERED AGE	64
F223	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON PHOTO-SENSOR SYSTEMS	64
F211	OPERATE OTHER AIRCRAFT SYSTEMS, SUCH AS RADAR, INS, OR WRCS	64
X708	PERFORM SINGLE-POINT AIRCRAFT REFUELING OR DEFUELING	59

TABLE A9

VIDEO SYSTEMS MAINTENANCE JOB (GRP068)

NUMBER IN GROUP: 219
PERCENT OF SAMPLE: 21%

AVERAGE TIME IN JOB: 25 MONTHS
AVERAGE TAFMS: 63 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
V675	BENCH CHECK AIRBORNE VIDEOTAPE RECORDERS (AVTR)	97
V680	OPERATIONALLY CHECK AVTRS ON AIRCRAFT	96
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	96
V687	REMOVE OR REPLACE VIDEOTAPE RECORDERS	94
V684	PERFORM MECHANICAL ALIGNMENTS ON VIDEOTAPE RECORDERS	93
V683	PERFORM ELECTRICAL ALIGNMENTS ON VIDEOTAPE RECORDERS	92
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	90
V688	REMOVE OR REPLACE VIDEO UPPER HEAD DRUMS	90
F205	INVENTORY FLIGHTLINE CTKs	87
V669	ALIGN OR ADJUST CAPSTAN SPEED	87
V670	ALIGN OR ADJUST DRUM SPEED	87
V685	PERFORM VIDEO ALIGNMENTS ON VIDEOTAPE RECORDERS	86
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	85
V674	ALIGN OR ADJUST UPPER HEAD DRUMS	85
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	84
G311	POSITION AGE TO AIRCRAFT	84
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	84
F240	READ OR INTERPRET SCHEMATICS	82
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	82
V677	BENCH CHECK GROUND VIDEOTAPE RECORDERS (GVTR)	81
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	80
F241	READ OR INTERPRET WIRING DIAGRAMS	80
V682	PERFORM AUDIO ALIGNMENTS ON VIDEOTAPE RECORDERS	80
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	79
V681	OPERATIONALLY CHECK CTVS ON AIRCRAFT	78
V676	BENCH CHECK COCKPIT TELEVISION SYSTEMS (CTVS)	77
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	77
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	74
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	74
E121	COMPLETE EQUIPMENT STATUS TAGS	74
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	71
F223	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON PHOTO-SENSOR SYSTEMS	68

TABLE A10

IN-SHOP TACTICAL CAMERA MAINTENANCE JOB (STG084)

NUMBER IN GROUP: 59
PERCENT OF SAMPLE: 6%

AVERAGE TIME IN JOB: 30 MONTHS
AVERAGE TAFMS: 58 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	92
T600	BENCH CHECK FRAMING CAMERA SYSTEMS	90
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	90
F167	ALIGN OR ADJUST INFRARED RECEIVERS	90
T599	BENCH CHECK ACPCS	88
F212	PACK OR UNPACK PHOTO-SENSOR SYSTEM EQUIPMENT	88
F193	CLEAN MIRRORS OR LENS	88
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	85
T605	BENCH CHECK PHOTOFLASH SYSTEMS	85
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	85
G306	BENCH CHECK POWER SUPPLIES	85
T602	BENCH CHECK MAPPING CAMERA SYSTEMS	85
T598	ALIGN OR ADJUST YOKE AND PLATEN ASSEMBLIES	83
R555	BENCH CHECK AAD-5 SYSTEMS	83
T578	ALIGN OR ADJUST AIRCRAFT CAMERA PARAMETER CONTROLS (ACPC)	83
F220	PERFORM HIGH RELIABILITY SOLDERING	83
T581	ALIGN OR ADJUST CAMERA FOCAL PLANE SHUTTERS	81
T588	ALIGN OR ADJUST FILM SUPPLY OR TAKEUP MECHANISMS	81
R553	ALIGN OR ADJUST AAD-5 SRUs	80
F161	ALIGN OR ADJUST ELECTRONIC COMPONENTS ON CIRCUIT CARDS	80
E118	COMPLETE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	78
F240	READ OR INTERPRET SCHEMATICS	78
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	76
R559	REMOVE OR REPLACE AAD-5 SRUs	76
F260	REMOVE OR REPLACE ELECTRONIC COMPONENTS ON CIRCUIT CARDS	76
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	75
C50	REMOVE OR REPLACE SHUTTER ASSEMBLIES	75
T582	ALIGN OR ADJUST CAMERA GEARS	73
R558	PERFORM MAGAZINE VERIFICATION CHECKS ON AAD-5 SYSTEMS	73
R554	ALIGN OR ADJUST RECORDER ASSEMBLIES	73
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	69

TABLE A11

FLIGHTLINE TACTICAL CAMERA MAINTENANCE JOB (STG140)

NUMBER IN GROUP: 98
PERCENT OF SAMPLE: 9%

AVERAGE TIME IN JOB: 27 MONTHS
AVERAGE TAFMS: 66 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
T616	OPERATIONALLY CHECK ACPC ON AIRCRAFT	97
F237	PURGE PHOTO-SENSOR SYSTEMS USING NITROGEN	97
T654	UPLOAD OR DOWNLOAD FILM CASSETTES ON AIRCRAFT	96
T656	UPLOAD OR DOWNLOAD FILM IN MAGAZINES USING DARKROOM PROCEDURES	96
T657	VISUALLY INSPECT CAMERA BAYS FOR DAMAGE	96
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	96
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	96
F295	SET FILM COUNTERS IN AIRCRAFT	96
R564	REMOVE OR REPLACE INFRARED PERFORMANCE ANALYZERS (IRPA)	95
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	94
F251	REMOVE OR REPLACE CAMERA MAGAZINES	93
T621	OPERATIONALLY CHECK PANORAMIC CAMERA SYSTEMS ON AIRCRAFT	93
T628	REMOVE OR REPLACE ACPCs	93
R556	OPERATIONALLY CHECK AAD-5 SYSTEMS ON AIRCRAFT	92
T617	OPERATIONALLY CHECK FRAMING CAMERA SYSTEMS ON AIRCRAFT	91
F248	REMOVE OR REPLACE BALLAST	91
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	88
T633	REMOVE OR REPLACE CASSETTES	88
R557	PERFORM BIT ON AAD-5 SYSTEMS	88
F243	RECONFIGURE PHOTO-SENSOR SYSTEMS	87
G312	REMOVE OR REPLACE INFRARED POWER SUPPLIES	87
F191	CLEAN CAMERA VIEWING WINDOWS ON AIRCRAFT	86
G311	POSITION AGE TO AIRCRAFT	86
F292	SAFETY-WIRE EQUIPMENT	85
T619	OPERATIONALLY CHECK MAPPING CAMERA SYSTEMS ON AIRCRAFT	84
X709	POSITION OR REMOVE AIRCRAFT CHOCKS OR GROUND SAFETY PINS	84
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	83
F212	PACK OR UNPACK PHOTO-SENSOR SYSTEM EQUIPMENT	83
X704	LAUNCH OR RECOVER AIRCRAFT	82
F254	REMOVE OR REPLACE COCKPIT CONTROL PANELS	82
F293	SALVAGE WASTE FILM	76
T615	DELIVER UNPROCESSED FILM OR TAPES TO PROCESSING AGENCIES	68

TABLE A12

STRATEGIC CAMERA MAINTENANCE JOB (STG128)

NUMBER IN GROUP: 48
PERCENT OF SAMPLE: 5%

AVERAGE TIME IN JOB: 28 MONTHS
AVERAGE TAFMS: 52 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
F191	CLEAN CAMERA VIEWING WINDOWS ON AIRCRAFT	94
F205	INVENTORY FLIGHTLINE CTKs	92
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	88
F292	SAFETY-WIRE EQUIPMENT	88
F240	READ OR INTERPRET SCHEMATICS	88
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	85
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	83
F193	CLEAN MIRRORS OR LENS	83
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	83
F295	SET FILM COUNTERS IN AIRCRAFT	81
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	81
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	81
F216	PERFORM CORROSION CONTROL ON PHOTO-SENSOR SYSTEMS IN SHOP	81
F204	INVENTORY EQUIPMENT, SUPPLIES, OR TOOLS, OTHER THAN FLIGHTLINE CONSOLIDATED TOOL KITS (CTK)	79
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	79
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	79
E118	COMPLETE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	79
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	77
T657	VISUALLY INSPECT CAMERA BAYS FOR DAMAGE	77
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	77
F223	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON PHOTO-SENSOR SYSTEMS	75
F293	SALVAGE WASTE FILM	73
F199	DON AND DOFF PROTECTIVE CLOTHING, SUCH AS APRONS, GOGGLES, OR GLOVES	71
F237	PURGE PHOTO-SENSOR SYSTEMS USING NITROGEN	69
U660	BORESIGHT DRIFTSIGHTS (VIEWSIGHTS)	67
F297	TOW PHOTO-SENSOR SYSTEMS TO AIRCRAFT OR SHOP	65
T604	BENCH CHECK PANORAMIC CAMERA SYSTEMS	63
T656	UPLOAD OR DOWNLOAD FILM IN MAGAZINES USING DARKROOM PROCEDURES	58
F251	REMOVE OR REPLACE CAMERA MAGAZINES	50

APPENDIX B

STS ANALYSIS TABLES

TABLE B1

UNSUPPORTED AFSC 455X0A STS ELEMENTS

		PERCENT MEMBERS PERFORMING			
		1ST JOB	1ST ENL	5-LVL	7-LVL
11i.	EVALUATE PROCESSED FILM/TAPE				
F200	EVALUATE FILM FOR SYSTEM MALFUNCTIONS USING DENSITOMETERS	0	4	3	1
F201	EVALUATE FILM FOR SYSTEM MALFUNCTIONS USING FLIGHT DATA FILM ANALYZERS	2	3	2	2
F202	EVALUATE FILM FOR SYSTEM MALFUNCTIONS USING LIGHT TABLES	5	6	5	2
F203	EVALUATE FILM FOR SYSTEM MALFUNCTIONS USING POINT LIGHT SOURCES	5	8	5	1
17B(10)(A).	PERFORM FUNCTIONAL CHECK				
J359	BENCH CHECK RADAR MAPPING SENSOR SYSTEMS	5	7	5	1
17B(11)(A).	PERFORM FUNCTIONAL CHECK				
J359	BENCH CHECK RADAR MAPPING SENSOR SYSTEMS	5	7	5	1
17B(12)(A).	PERFORM FUNCTIONAL CHECK				
J359	BENCH CHECK RADAR MAPPING SENSOR SYSTEMS	5	7	5	1
17B(13)(A).	PERFORM FUNCTIONAL CHECK				
J359	BENCH CHECK RADAR MAPPING SENSOR SYSTEMS	5	7	5	1
17B(14)(A).	PERFORM FUNCTIONAL CHECK				
J359	BENCH CHECK RADAR MAPPING SENSOR SYSTEMS	5	7	5	1
J367	VERIFY RADAR SET FAULT LOCATORS	2	1	1	1
17B(15)(A).	PERFORM FUNCTIONAL CHECK				
J359	BENCH CHECK RADAR MAPPING SENSOR SYSTEMS	5	7	5	1

TABLE B1 (CONTINUED)

UNSUPPORTED AFSC 455X0A STS ELEMENTS

	PERCENT MEMBERS PERFORMING			
	1ST JOB	1ST ENL	5-LVL	7-LVL
17B(16)(B). PERFORM FUNCTIONAL CHECK				
J359 BENCH CHECK RADAR MAPPING SENSOR SYSTEMS	5	7	5	1
17B(17)(A). PERFORM FUNCTIONAL CHECK				
F154 ALIGN OR ADJUST ANTENNA CONTROL ASSEMBLIES	15	14	12	7
J359 BENCH CHECK RADAR MAPPING SENSOR SYSTEMS	5	7	5	1
17B(17)(B). PERFORM ALIGNMENTS				
F154 ALIGN OR ADJUST ANTENNA CONTROL ASSEMBLIES	15	14	12	7
J358 ALIGN OR ADJUST RADAR MAPPING SENSOR SYSTEM SRUs	5	6	4	1
17B(19)(A). PERFORM FUNCTIONAL CHECK				
J359 BENCH CHECK RADAR MAPPING SENSOR SYSTEMS	5	7	5	1
17C(4). PERFORM OPERATIONAL CHECK				
K372 BENCH CHECK PAVE SPIKE LINE REPLACEABLE UNITS	0	0	1	0
K373 BENCH CHECK PAVE SPIKE SYSTEMS	0	1	1	1
K374 BORESIGHT PAVE SPIKE PODS	0	0	1	1
K376 PERFORM BIT ON SPAVE SPIKE SYSTEMS	0	1	1	1
17C(11)(A). PERFORM FUNCTIONAL CHECK				
K372 BENCH CHECK PAVE SPIKE LRUs	0	0	1	0
17C(12)(A). PERFORM FUNCTIONAL CHECK				
K372 BENCH CHECK PAVE SPIKE LRUs	0	0	1	0

TABLE B1 (CONTINUED)

UNSUPPORTED AFSC 455X0A STS ELEMENTS

	PERCENT MEMBERS PERFORMING			
	1ST JOB	1ST ENL	5-LVL	7-LVL
17C(13)(A). PERFORM FUNCTIONAL CHECK				
K372 BENCH CHECK PAVE SPIKE LRUs	0	0	1	0
17C(14)(A). PERFORM FUNCTIONAL CHECK				
K372 BENCH CHECK PAVE SPIKE LRUs	0	0	1	0
17D(4). PERFORM OPERATIONAL CHECK				
L392 BENCH CHECK LLLTV SYSTEMS	7	7	8	2
17D(12)(D). TROUBLESHOOT				
L399 REMOVE OR REPLACE REMOTE CONTROL UNITS	10	8	8	3
17D(15)(B). TROUBLESHOOT				
L397 REMOVE OR REPLACE LLLTV LENS UNITS	10	9	8	3
17D(18)(A). PERFORM FUNCTIONAL CHECK				
F153 ACTIVATE DEWAR-GETTER PUMPS	10	9	10	5
17D(18)(C). PERFORM ALIGNMENTS				
F159 ALIGN OR ADJUST DEWAR-GETTERS	10	11	10	5
17G(4)(A). PERFORM FUNCTIONAL CHECK				
P467 BENCH CHECK PAVE PENNY SYSTEMS	12	18	16	12
P471 PERFORM BIT CHECK ON PAVE PENNY SYSTEMS	12	19	16	15

TABLE B1 (CONTINUED)

UNSUPPORTED AFSC 455X0A STS ELEMENTS

	PERCENT MEMBERS PERFORMING			
	1ST JOB	1ST ENL	5-LVL	7-LVL
17G(5)(A). PERFORM FUNCTIONAL CHECK				
P467 BENCH CHECK PAVE PENNY SYSTEMS	12	18	16	12
17G(6)(A). PERFORM FUNCTIONAL CHECK				
P467 BENCH CHECK PAVE PENNY SYSTEMS	12	18	16	12
17K(4). PERFORM FUNCTIONAL CHECK				
Q503 BENCH CHECK METEOROLOGICAL EQUIPMENT	7	2	1	1
17K(5). PERFORM ALIGNMENTS				
Q492 ALIGN OR ADJUST METEOROLOGICAL DIGITAL PRESSURE PRESSURE ENCODERS	10	2	1	1
17L(4). PERFORM FUNCTIONAL CHECK				
Q503 BENCH CHECK METEOROLOGICAL EQUIPMENT	7	2	1	1
17K(5). PERFORM ALIGNMENTS				
Q500 ALIGN OR ADJUST TEMPERATURE MEASURING SETS	10	2	1	1
17M(4). PERFORM FUNCTIONAL CHECK				
Q503 BENCH CHECK METEOROLOGICAL EQUIPMENT	7	2	1	1
17M(5). PERFORM ALIGNMENTS				
Q484 ALIGN OR ADJUST DEWPOINT HYGROMETERS	12	3	1	1

TABLE B1 (CONTINUED)

UNSUPPORTED AFSC 455X0A STS ELEMENTS

	PERCENT MEMBERS PERFORMING			
	1ST JOB	1ST ENL	5-LVL	7-LVL
17N(4). PERFORM FUNCTIONAL CHECK				
Q503 BENCH CHECK METEOROLOGICAL EQUIPMENT	7	2	1	1
17N(5). PERFORM ALIGNMENTS				
Q494 ALIGN OR ADJUST PRT-5 SEA SURFACE TEMPERATURE INDICATORS	0	0	0	0
18B(1). PERFORM OPERATIONAL CHECK				
Q503 BENCH CHECK METEOROLOGICAL EQUIPMENT	7	2	1	1
18C(1). PERFORM OPERATIONAL CHECK				
Q503 BENCH CHECK METEOROLOGICAL EQUIPMENT	7	2	1	1
18G(1). PERFORM OPERATIONAL CHECK				
Q503 BENCH CHECK METEOROLOGICAL EQUIPMENT	7	2	1	1
18H(3). REMOVE/REPLACE LRUs				
Q542 REMOVE OR REPLACE SEA SURFACE TEMPERATURE INDICATORS	0	0	0	0
Q543 REMOVE OR REPLACE SEA WATER SAMPLER COMPONENTS	0	0	0	0
Q544 REMOVE OR REPLACE SEA WATER SAMPLERS	0	0	0	0
18R(1). PERFORM OPERATIONAL CHECK				
Q503 BENCH CHECK METEOROLOGICAL EQUIPMENT	7	2	1	1

TABLE B1 (CONTINUED)

UNSUPPORTED AFSC 455X0A STS ELEMENTS

		PERCENT MEMBERS PERFORMING			
		1ST JOB	1ST ENL	5-LVL	7-LVL
18V(1).	PERFORM OPERATIONAL CHECK				
K375	OPERATIONALLY CHECK PAVE SPIKE SYSTEMS ON AIRCRAFT	0	0	0	0
K376	PERFORM BIT CHECK ON PAVE SPIKE SYSTEMS	0	1	1	1
18W(1).	PERFORM OPERATIONAL CHECK				
P465	ALIGN OR ADJUST TARGET IDENTIFYING SET LASER (TISL) CONTROLS	12	18	15	12
P469	OPERATIONALLY CHECK PAVE PENNY SYSTEMS ON AIRCRAFT	12	19	15	14
P471	PERFORM BIT ON PAVE PENNY SYSTEMS	12	19	16	15

TABLE B2

TASKS PERFORMED BY MORE THAN 20 PERCENT CRITERION GROUPS NOT MATCHED TO AFSC 455X0A STS

		PERCENT MEMBERS PERFORMING			
		1ST JOB	1ST ENL	5-LVL	7-LVL
F241	READ OR INTERPRET WIRING DIAGRAMS	83	79	76	53
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	83	83	77	48
F240	READ OR INTERPRET SCHEMATICS	80	81	78	52
F237	PURGE PHOTO-SENSOR SYSTEMS USING NITROGEN	71	61	57	32
F253	REMOVE OR REPLACE CIRCUIT CARD ASSEMBLIES	71	75	71	39
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	63	65	63	52
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	63	71	67	41
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	63	72	74	61
F238	READ OR INTERPRET BLOCK DIAGRAMS	63	71	68	48
F199	DON AND DOFF PROTECTIVE CLOTHING, SUCH AS APRONS, GOGGLES, OR GLOVES	56	59	60	39
G312	REMOVE OR REPLACE INFRARED POWER SUPPLIES	56	43	42	26
G314	REMOVE OR REPLACE POD POWER SUPPLIES	56	37	33	19
F250	REMOVE OR REPLACE CABLE ASSEMBLIES	54	51	48	28
G310	PERFORM VOLTAGE CHECKS	54	59	55	39
G313	REMOVE OR REPLACE LASER POWER SUPPLIES	54	31	28	20
F257	REMOVE OR REPLACE DESICCANT	51	33	29	20
E116	COMPLETE AFTO FORMS 781A (MAINTENANCE DISCREPANCY AND WORK DOCUMENT)	49	61	63	52
F242	READ OR INTERPRET WIRING TABLES	46	46	49	38
F246	REMOVE OR REPLACE AIRCRAFT PROTECTIVE DEVICES, SUCH AS COVERS	46	49	44	23
F260	REMOVE OR REPLACE ELECTRONIC COMPONENTS ON CIRCUIT CARDS	46	45	47	28
F273	REMOVE OR REPLACE LIGHT BULBS, FUSES, OR CIRCUIT BREAKERS	46	53	57	33
F276	REMOVE OR REPLACE MECHANICAL COMPONENTS	46	42	44	30
F223	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON PHOTO-SENSOR SYSTEMS	44	52	52	32
F285	REMOVE OR REPLACE SIGNAL GENERATORS	44	29	25	11
F302	VISUALLY INSPECT EGRESS SYSTEMS FOR SAFETY	44	46	43	33
G317	REMOVE OR REPLACE POWER SUPPLY ASSEMBLIES	44	39	37	22
G316	REMOVE OR REPLACE POWER DISTRIBUTION UNITS	41	22	16	10
H318	ALIGN OR ADJUST ENVIRONMENTAL CONTROL UNITS (ECU)	41	24	22	16
F263	REMOVE OR REPLACE FIELD OF VIEW SWITCHING UNITS	39	34	34	18
F267	REMOVE OR REPLACE INFRARED OPTICS	39	28	29	15

TABLE B3

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
7D.	COLOR CODE	
A34	DO YOU USE CAPACITOR COLOR CODES IN YOUR PRESENT JOB	7
8C.	CALCULATIONS	
A37	DO YOU CALCULATE TRANSFORMER VOLTAGE OR CURRENT STEP-UP OR STEP-DOWN RATIOS	7
A38	DO YOU CALCULATE IMPEDANCE OF TRANSFORMERS	3
11C.	TROUBLESHOOT MOTORS	
A51	DO YOU TROUBLESHOOT AC MOTOR COMPONENT PARTS	2
12A.	THEORY OF OPERATION	
A53	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING DC GENERATORS	4
A56	DO YOU PERFORM TASKS ON COMPONENT PARTS OF DC GENERATORS	1
12B.	ISOLATE FAULTY DC GENERATORS	
A54	DO YOU TROUBLESHOOT TO ISOLATE A FAULTY DC GENERATOR	2
12C.	TROUBLESHOOT DC GENERATORS	
A55	DO YOU TROUBLESHOOT DC GENERATOR COMPONENT PARTS	2
13A.	THEORY OF OPERATION	
A57	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING AC GENERATORS	4
A60	DO YOU PERFORM TASKS ON COMPONENT PARTS OF AC GENERATORS	2
13B.	ISOLATE FAULTY AC GENERATORS	
A58	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY AC GENERATOR	4

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
13C.	TROUBLESHOOT AC GENERATORS	
A59	DO YOU TROUBLESHOOT AC GENERATOR COMPONENT PARTS	2
14A.	THEORY OF OPERATION	
A61	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING ALTERNATORS	1
A64	DO YOU PERFORM TASKS ON COMPONENT PARTS OF ALTERNATORS	1
14B.	ISOLATE FAULTY ALTERNATORS	
A62	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY ALTERNATOR	1
14C.	TROUBLESHOOT ALTERNATORS	
A63	DO YOU TROUBLESHOOT ALTERNATOR COMPONENT PARTS	1
16A.	THEORY OF OPERATION	
A69	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING CHOPPERS	0
16B.	ISOLATE FAULTY CHOPPERS	
A70	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY CHOPPER	0
A71	DO YOU MEASURE CHOPPER COIL EXCITATION FREQUENCY	0
A72	DO YOU MEASURE CHOPPER COIL VOLTAGE-CURRENT PHASE RELATIONSHIP	0
17A.	THEORY OF OPERATION	
A73	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING TRANSDUCERS	1
A75	DO YOU CALIBRATE OR ADJUST TRANSDUCERS	1
A76	DO YOU REPAIR, CLEAN OR LUBRICATE TRANSDUCERS	0

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
17B.	ISOLATE FAULTY TRANSDUCERS	
A74	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY TRANSDUCER	1
19C.	SPECIFICATIONS	
A86	DO YOU USE DIODE CHARACTERISTIC CURVES	4
A87	DO YOU USE DIODE SUBSTITUTION INFORMATION	4
19D.	COLOR CODE	
A88	DO YOU USE DIODE COLOR CODES	6
21C.	SPECIFICATIONS	
A97	DO YOU USE IC SUBSTITUTION INFORMATION	3
23C.	SPECIFICATIONS	
A123	DO YOU USE ELECTRON TUBE CHARACTERISTIC CURVES	0
A124	DO YOU USE ELECTRON TUBE SUBSTITUTION MANUALS OR CHARTS	0
27E.	SPECTRUM ANALYZER	
B186	DO YOU USE SPECTRUM ANALYZERS	2
27F.	FIELD STRENGTH TESTER	
B187	DO YOU USE FIELD STRENGTH TESTERS	2
27H.	DIGITAL LOGIC PROBE	
B189	DO YOU USE DIGITAL LOGIC PROBES	2
27I.	CAPACITOR TESTER	
B190	DO YOU USE CAPACITANCE TESTERS	7

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
27J.	CAPACITOR SUBSTITUTION BOX	
B191	DO YOU USE CAPACITOR SUBSTITUTION BOXES	2
27K.	DC RESTORER	
B192	DO YOU USE DC RESTORERS (CRT REJUVENATOR)	2
27L.	LOGIC CURRENT TRACER	
B193	DO YOU USE LOGIC CURRENT TRACERS	2
27M.	TUBE TESTER	
B194	DO YOU USE TUBE TESTERS	2
27N.	LOGIC PULSER	
B195	DO YOU USE LOGIC PULSERS	2
27O.	LOGIC ANALYZER	
B196	DO YOU USE LOGIC ANALYZERS	2
27P.	SIGNATURE ANALYZER	
B197	DO YOU USE SIGNATURE ANALYZERS	2
29A.	THEORY OF OPERATION	
C234	DO YOU TRACE BLOCK DIAGRAMS OF CIRCUITS CONTAINING ELECTRON TUBE AMPLIFIERS	1
C235	DO YOU TRACE SCHEMATIC DIAGRAMS OF ELECTRON TUBE AMPLIFIERS	1
C239	DO YOU ADJUST OR ALIGN ELECTRON TUBE AMPLIFIERS	1
C241	DO YOU CALCULATE VALUES OF ELECTRON TUBE AMPLIFIER VOLTAGE, CURRENT, OR POWER GAIN	1
C242	DO YOU PERFORM TASKS ON PARAPHASE ELECTRON TUBE AMPLIFIERS	0
C243	DO YOU PERFORM TASKS ON PUSH-PULL ELECTRON TUBE AMPLIFIERS	1
C244	DO YOU PERFORM TASKS ON AUDIO ELECTRON TUBE AMPLIFIERS	1

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
29A.	THEORY OF OPERATION (CONTINUED)	
C245	DO YOU PERFORM TASKS ON VOLTAGE REGULATOR ELECTRON TUBE AMPLIFIERS	1
C246	DO YOU PERFORM TASKS ON COMMON GRID ELECTRON TUBE AMPLIFIERS	1
C247	DO YOU PERFORM TASKS ON COMMON CATHODE ELECTRON TUBE AMPLIFIERS	1
C248	DO YOU PERFORM TASKS ON CATHODE FOLLOWER ELECTRON TUBE AMPLIFIERS	1
29B.	ISOLATE FAULTY TUBE AMPLIFIERS	
C236	DO YOU TROUBLESHOOT TO ISOLATE A FAULTY ELECTRON TUBE AMPLIFIER	1
C240	DO YOU MEASURE ELECTRON TUBE AMPLIFIER VOLTAGE, CURRENT, OR POWER GAIN	1
29C.	TROUBLESHOOT CIRCUITS	
C237	DO YOU TROUBLESHOOT ELECTRON TUBE AMPLIFIERS TO CIRCUIT LEVEL COMPONENTS	1
C238	DO YOU TROUBLESHOOT ELECTRON TUBE AMPLIFIER DISTORTION	1
30A.	THEORY OF OPERATION	
C249	DO YOU TRACE BLOCK OR SCHEMATIC DIAGRAMS OF CIRCUITS CONTAINING OPERATIONAL AMPLIFIERS (OP AMPS)	2
C251	DO YOU CALCULATE OP AMP GAIN	2
C252	DO YOU ADJUST OP AMP BIAS, OFFSETS, OR DRIFT	1
C253	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS FOR GENERAL PURPOSE (INVERTING OR NON-INVERTING)	1
C254	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS AS DIFFERENTIAL/ COMPARATORS	1
C255	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS FOR SUMMING	1
C256	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS FOR UNITY GAIN AMPLIFIER (BUFFER)	1
C257	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS AS ACTIVE FILTERS	2
C258	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS AS OSCILLATORS	2
C259	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS AS INTEGRATORS	1

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
30A.	THEORY OF OPERATION (CONTINUED)	
C260	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS FOR DIFFERENTIATORS	1
C261	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS FOR POWER SUPPLIES (VOLTAGE REGULATORS)	6
C262	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS AS ANALOG/DIGITAL (A/D) DIGITAL/ANALOG (D/A) CONVERTERS	2
C263	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS AS MULTIVIBRATORS	1
C264	DO YOU USE OR APPLY OPERATIONAL AMPLIFIERS AS MODULATORS/ DEMODULATORS	1
32A.	THEORY OF OPERATION	
C270	DO YOU TRACE BLOCK DIAGRAMS OF CIRCUITS CONTAINING SATURABLE REACTORS	0
C271	DO YOU TRACE SCHEMATIC DIAGRAMS OF SATURABLE REACTOR CIRCUITS	0
C274	DO YOU ADJUST SATURABLE REACTOR CIRCUITS OR COMPONENTS	0
32B.	ISOLATE FAULTY SATURABLE REACTORS	
C272	DO YOU TROUBLESHOOT TO ISOLATE A FAULTY SATURABLE REACTOR	0
32C.	TROUBLESHOOT CIRCUITS	
C273	DO YOU TROUBLESHOOT SATURABLE REACTORS TO CIRCUIT LEVEL COMPONENTS	0
35D.	CALCULATIONS	
E314	DO YOU CALCULATE VALUES OF IMPEDANCE, VOLTAGE, OR CURRENT IN RCL CIRCUITS	2
E315	DO YOU CALCULATE PHASE ANGLE OF RCL CIRCUITS	1
E316	DO YOU CALCULATE VALUES OF POWER IN RCL CIRCUITS	1

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
36A.	THEORY OF OPERATION	
E317	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING FREQUENCY SENSITIVE FILTERS	3
E320	DO YOU ALIGN OR ADJUST FREQUENCY SENSITIVE FILTERS	1
E322	DO YOU PERFORM TASKS ON LOW PASS FREQUENCY SENSITIVE FILTERS	2
E323	DO YOU PERFORM TASKS ON HIGH PASS FREQUENCY SENSITIVE FILTERS	1
E324	DO YOU PERFORM TASKS ON BAND PASS FREQUENCY SENSITIVE FILTERS	2
E325	DO YOU PERFORM TASKS ON BAND-REJECT FREQUENCY SENSITIVE FILTERS	2
E326	DO YOU PERFORM TASKS ON FERRITE BEAD FREQUENCY SENSITIVE FILTERS	0
36B.	ISOLATE FAULTY FREQUENCY SENSITIVE FILTERS	
E318	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY FREQUENCY SENSITIVE FILTER	4
36C.	TROUBLESHOOT CIRCUITS	
E319	DO YOU TROUBLESHOOT FREQUENCY SENSITIVE FILTERS TO CIRCUIT LEVEL COMPONENTS	1
39A.	THEORY OF OPERATION	
F375	DO YOU TRACE BLOCK DIAGRAMS OF CIRCUITS CONTAINING CLAMPERS	1
42A.	DIAGRAM TO EQUATION	
G435	DO YOU DEVELOP BOOLEAN EQUATIONS FROM LOGIC CIRCUITS OR DIAGRAMS	1
42B.	EQUATION TO DIAGRAM	
G436	DO YOU DEVELOP LOGIC DIAGRAMS FROM BOOLEAN EQUATIONS	1

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
42C.	SIMPLIFY EXPRESSIONS	
G437	DO YOU SIMPLIFY BOOLEAN EXPRESSIONS USING BOOLEAN ALGEBRA	1
43C.	WRITE/DEBUG PROGRAMS	
G449	DO YOU WRITE OR DEBUG PROGRAMS	5
G453	DO YOU USE COMPUTER FLOW CHARTS OR DIAGRAMS	3
43E.	CIRCUIT TROUBLESHOOTING	
G452	DO YOU TROUBLESHOOT COMPUTER SUBASSEMBLY OR CIRCUIT CARD TO CIRCUIT LEVEL COMPONENTS OR IC	2
43H.	PROGRAMMING LANGUAGES	
G456	DO YOU USE BASIC COMPUTER LANGUAGE	5
G457	DO YOU USE COBOL COMPUTER LANGUAGE	2
G458	DO YOU USE FORTRAN COMPUTER LANGUAGE	1
G459	DO YOU USE ADA COMPUTER LANGUAGE	1
G460	DO YOU USE ATLAS COMPUTER LANGUAGE	1
G461	DO YOU USE ELAN COMPUTER LANGUAGE	1
G462	DO YOU USE PASCAL COMPUTER LANGUAGE	1
G463	DO YOU USE RPG COMPUTER LANGUAGE	1
G464	DO YOU USE MACHINE COMPUTER LANGUAGE	2
G465	DO YOU USE C COMPUTER LANGUAGE	1
44A.	THEORY OF OPERATION	
G485	DO YOU TRACE BLOCK OR SCHEMATIC DIAGRAMS OF MICROPROCESSOR-CONTROLLED SYSTEMS	2
44B.	ISOLATE FAULTY MICROPROCESSORS	
G486	DO YOU TROUBLESHOOT MICROPROCESSOR-CONTROLLED SYSTEMS TO A SUBASSEMBLY OR CIRCUIT CARD	2
G487	DO YOU TROUBLESHOOT MICROPROCESSOR-CONTROLLED SYSTEMS TO ISOLATE A FAULTY MICROPROCESSOR	2

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
45C.	TROUBLESHOOT CIRCUITS	
G490	DO YOU TROUBLESHOOT COUNTERS TO CIRCUIT LEVEL COMPONENTS	1
G500	DO YOU TROUBLESHOOT REGISTERS TO CIRCUIT LEVEL COMPONENTS	1
G505	DO YOU TROUBLESHOOT COMBINATIONAL LOGIC CIRCUITS TO CIRCUIT LEVEL COMPONENTS	2
47B.	PERFORM MEASUREMENTS	
H524	DO YOU MEASURE ELECTRICAL LENGTH ON TRANSMISSION LINES	6
H525	DO YOU MEASURE PHYSICAL LENGTH ON TRANSMISSION LINES	14
H526	DO YOU MEASURE STANDING WAVE RATIO (SWR) ON TRANSMISSION LINES	2
47C.	CALCULATIONS	
H529	DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (ZO) OF TRANSMISSION LINES	4
47D.	ISOLATE FAULTY TRANSMISSION LINES	
H530	DO YOU TROUBLESHOOT TRANSMISSION LINES	37
48A.	THEORY OF OPERATION	
H537	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING WAVEGUIDES	2
H539	DO YOU PRESSURIZE OR PURGE WAVEGUIDE ASSEMBLIES	1
H540	DO YOU MEASURE STANDING WAVE RATIO FOR WAVEGUIDE ASSEMBLIES	1
H541	DO YOU REMOVE OR INSTALL WAVEGUIDE OR ASSOCIATED COUPLING HARDWARE COMPONENTS	1
48B.	ISOLATE FAULTY WAVEGUIDES	
H538	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY WAVEGUIDE ASSEMBLY	1

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
49A.	THEORY OF OPERATION	
H542	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING MICROWAVE OSCILLATORS OR AMPLIFIERS	1
H545	DO YOU PERFORM TASKS ON TWO-CAVITY KLYSTRON MICROWAVE OSCILLATORS AND AMPLIFIERS	1
H546	DO YOU PERFORM TASKS ON THREE-CAVITY KLYSTRON MICROWAVE OSCILLATORS AND AMPLIFIERS	1
H547	DO YOU PERFORM TASKS ON REFLEX KLYSTRON MICROWAVE OSCILLATORS AND AMPLIFIERS	1
H548	DO YOU PERFORM TASKS ON TRAVELING WAVE TUBE MICROWAVE OSCILLATORS AND AMPLIFIERS	1
H549	DO YOU PERFORM TASKS ON MAGNETRON MICROWAVE OSCILLATORS AND AMPLIFIERS	1
H550	DO YOU PERFORM TASKS ON BACKWARD WAVE OSCILLATOR	1
H551	DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIERS	1
H552	DO YOU PERFORM TASKS ON YTTRIUM IRON GARNET (YIG) TUNED MICROWAVE OSCILLATORS AND AMPLIFIERS	1
49B.	TUNE OR ADJUST	
H544	DO YOU TUNE OR ADJUST MICROWAVE OSCILLATORS OR AMPLIFIERS	2
49C.	ISOLATE FAULTY MICROWAVE OSCILLATORS OR AMPLIFIERS	
H543	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY MICROWAVE OSCILLATOR OR AMPLIFIER	1
50A.	THEORY OF OPERATION	
H553	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING RESONANT CAVITIES	1
H558	DO YOU PERFORM TASKS ON PROBE RESONANT CAVITIES	1
H559	DO YOU PERFORM TASKS ON LOOP RESONANT CAVITIES	1
H560	DO YOU PERFORM TASKS ON APERTURE (IRIS/WINDOW) RESONANT CAVITIES	1

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
50B.	ISOLATE FAULTY RESONANT CAVITIES	
H554	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY RESONANT CAVITY	1
H557	DO YOU MEASURE FREQUENCY OF RESONANT CAVITIES	1
50C.	TUNE/ADJUST	
H555	DO YOU TUNE OR ADJUST RESONANT CAVITIES ELECTRICALLY	1
H556	DO YOU TUNE OR ADJUST RESONANT CAVITIES PHYSICALLY	1
51A(1).	AMPLITUDE MODULATION	
H561	DO YOU USE "AM" MODULATION PRINCIPLES	1
H562	DO YOU TRACE BLOCK DIAGRAMS OF AM TRANSMITTERS	1
H563	DO YOU TRACE BLOCK DIAGRAMS OF AM TRANSMITTER SUBASSEMBLIES OR CIRCUIT CARDS	1
H564	DO YOU TRACE SCHEMATIC DIAGRAMS OF AM TRANSMITTER SUBASSEMBLIES OR CIRCUITS CARDS	1
H568	DO YOU ALIGN OR ADJUST AM TRANSMITTERS OR CIRCUITS	1
H569	DO YOU CALCULATE PERCENTAGE OF MODULATION FOR AM TRANSMITTERS	1
51A(2).	FREQUENCY MODULATION	
H593	DO YOU USE "FM" MODULATION PRINCIPLES	1
H594	DO YOU TRACE BLOCK DIAGRAMS OF FM TRANSMITTERS	1
H595	DO YOU TRACE BLOCK DIAGRAMS OF FM TRANSMITTER SUBASSEMBLIES OR CIRCUIT CARDS	1
H596	DO YOU TRACE SCHEMATIC DIAGRAMS OF FM TRANSMITTER SUBASSEMBLIES OR CIRCUIT CARDS	1
H600	DO YOU ALIGN OR ADJUST FM TRANSMITTERS OR CIRCUITS	1
H601	DO YOU CALCULATE MODULATION INDEX FOR FM TRANSMITTERS	1
H602	DO YOU MEASURE FREQUENCY DEVIATION FOR FM TRANSMITTERS	1
51A(3).	SINGLE SIDE BAND	
H578	DO YOU TRACE BLOCK DIAGRAMS OF SINGLE SIDE BAND (SSB) TRANSMITTERS	0
H579	DO YOU TRACE BLOCK DIAGRAMS OF SSB TRANSMITTER SUBASSEMBLIES OR CIRCUIT CARDS	0

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
51A(3).	SINGLE SIDE BAND (CONTINUED)	
H580	DO YOU TRACE SCHEMATIC DIAGRAMS OF SSB TRANSMITTER SUBASSEMBLIES OR CIRCUIT CARDS	0
H584	DO YOU ALIGN OR ADJUST SSB TRANSMITTERS OR CIRCUITS	0
H585	DO YOU CALCULATE PERCENTAGE OF MODULATION FOR SSB TRANSMITTERS	0
51A(4).	PULSE MODULATION	
H612	DO YOU USE "PM" MODULATION PRINCIPLES	1
H613	DO YOU TRACE BLOCK DIAGRAMS OF PM TRANSMITTERS	1
H614	DO YOU TRACE BLOCK DIAGRAMS OF PM TRANSMITTER SUBASSEMBLIES OR CIRCUIT CARDS	1
H615	DO YOU TRACE SCHEMATIC DIAGRAMS OF PM TRANSMITTER SUBASSEMBLIES OR CIRCUIT CARDS	1
H619	DO YOU ALIGN OR ADJUST PM TRANSMITTERS OR CIRCUITS	1
H620	DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF) FOR PM TRANSMITTERS	1
H621	DO YOU MEASURE PRT, PRF OR PULSE WIDTH FOR PM TRANSMITTERS	1
51B.	ISOLATE FAULTY TRANSMITTERS	
H565	DO YOU TROUBLESHOOT AM TRANSMITTERS TO MAJOR UNITS	1
H566	DO YOU TROUBLESHOOT AM TRANSMITTERS TO SUBASSEMBLIES OR CIRCUIT CARDS	1
H581	DO YOU TROUBLESHOOT SSB TRANSMITTERS TO MAJOR UNITS	0
H582	DO YOU TROUBLESHOOT SSB TRANSMITTERS TO SUBASSEMBLIES OR CIRCUIT CARDS	0
H597	DO YOU TROUBLESHOOT FM TRANSMITTERS TO MAJOR UNITS	1
H598	DO YOU TROUBLESHOOT FM TRANSMITTERS TO SUBASSEMBLIES OR CIRCUIT CARDS	1
H616	DO YOU TROUBLESHOOT PM TRANSMITTERS TO MAJOR UNITS	1
H617	DO YOU TROUBLESHOOT PM TRANSMITTERS TO SUBASSEMBLIES OR CIRCUIT CARDS	1

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
51C.	TROUBLESHOOT CIRCUITS	-
H567	DO YOU TROUBLESHOOT AM TRANSMITTER SUBASSEMBLIES OR CIRCUIT CARDS TO CIRCUIT LEVEL COMPONENTS	1
H583	DO YOU TROUBLESHOOT SSB TRANSMITTER SUBASSEMBLIES OR CIRCUIT CARDS TO CIRCUIT LEVEL COMPONENTS	0
H599	DO YOU TROUBLESHOOT FM TRANSMITTER SUBASSEMBLIES OR CIRCUIT CARDS OR CIRCUIT LEVEL COMPONENTS	1
H618	DO YOU TROUBLESHOOT PM TRANSMITTER SUBASSEMBLIES OR CIRCUIT CARDS TO CIRCUIT LEVEL COMPONENTS	1
52A(1).	AMPLITUDE MODULATION	
H570	DO YOU USE "AM" DEMODULATION PRINCIPLES	1
H571	DO YOU TRACE BLOCK DIAGRAMS OF AM RECEIVERS	1
H572	DO YOU TRACE BLOCK DIAGRAMS OF AM RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS	1
H573	DO YOU TRACE SCHEMATIC DIAGRAMS OF AM RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS	1
H577	DO YOU ALIGN OR ADJUST AM RECEIVERS OR CIRCUITS	1
52A(2).	FREQUENCY MODULATION	
H603	DO YOU USE "FM" DEMODULATION PRINCIPLES	1
H604	DO YOU TRACE BLOCK DIAGRAMS OF FM RECEIVERS	1
H605	DO YOU TRACE BLOCK DIAGRAMS OF FM RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS	1
H606	DO YOU TRACE SCHEMATIC DIAGRAMS OF FM RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS	1
H610	DO YOU ALIGN OR ADJUST FM RECEIVERS OR CIRCUITS	1
H611	DO YOU PLOT RECEIVER SIGNAL LEVEL CURVES (RSL) FOR FM RECEIVERS	1
52A(3).	SINGLE SIDE BAND	
H586	DO YOU TRACE BLOCK DIAGRAMS OF SSB RECEIVERS	0
H587	DO YOU TRACE BLOCK DIAGRAMS OF SSB RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS	0
H588	DO YOU TRACE SCHEMATIC DIAGRAMS OF SSB RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS	0
H592	DO YOU ALIGN OR ADJUST SSB RECEIVERS OR CIRCUITS	0

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
52A(4). PULSE MODULATION		
H622	DO YOU USE "PM" DEMODULATION PRINCIPLES	1
H623	DO YOU TRACE BLOCK DIAGRAMS OF PM RECEIVERS	1
H624	DO YOU TRACE BLOCK DIAGRAMS OF PM RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS	1
H625	DO YOU TRACE SCHEMATIC DIAGRAMS OF PM RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS	1
H629	DO YOU ALIGN OR ADJUST PM RECEIVERS OR CIRCUITS	1
52B. ISOLATE FAULTY RECEIVERS		
H574	DO YOU TROUBLESHOOT AM RECEIVERS TO MAJOR UNITS	1
H575	DO YOU TROUBLESHOOT AM RECEIVERS TO SUBASSEMBLIES OR CIRCUIT CARDS	1
H589	DO YOU TROUBLESHOOT SSB RECEIVERS TO MAJOR UNITS	0
H590	DO YOU TROUBLESHOOT SSB RECEIVERS TO SUBASSEMBLIES OR CIRCUIT CARDS	0
H607	DO YOU TROUBLESHOOT FM RECEIVERS TO MAJOR UNITS	1
H608	DO YOU TROUBLESHOOT FM RECEIVERS TO SUBASSEMBLIES OR CIRCUIT CARDS	1
H626	DO YOU TROUBLESHOOT PM RECEIVERS TO MAJOR UNITS	1
H627	DO YOU TROUBLESHOOT PM RECEIVERS TO SUBASSEMBLIES OR CIRCUIT CARDS	1
52C. TROUBLESHOOT CIRCUITS		
H576	DO YOU TROUBLESHOOT AM RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS TO CIRCUIT LEVEL COMPONENTS	1
H591	DO YOU TROUBLESHOOT SSB RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS TO CIRCUIT LEVEL COMPONENTS	0
H609	DO YOU TROUBLESHOOT FM RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS TO CIRCUIT LEVEL COMPONENTS	1
H628	DO YOU TROUBLESHOOT PM RECEIVER SUBASSEMBLIES OR CIRCUIT CARDS TO CIRCUIT LEVEL COMPONENTS	1
53A. PERFORM MEASUREMENTS		
I660	DO YOU MEASURE RF POWER	1
I661	DO YOU MEASURE RF PEAK POWER	1
I662	DO YOU MEASURE RF AVERAGE POWER	1
I663	DO YOU MEASURE RF EFFECTIVE POWER	1
I664	DO YOU MEASURE RF OUTPUT POWER USING WATTMETERS	1

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
53B.	CALCULATIONS	
I665	DO YOU CALCULATE RF APPARENT POWER	1
I666	DO YOU CALCULATE RF TRUE POWER	1
I667	DO YOU CALCULATE RF POWER LOSS OR GAIN IN DB	2
54A.	THEORY OF OPERATION	
H634	DO YOU PLOT GRAPH RADIATION PATTERNS	1
H637	DO YOU WORK WITH YAGI ANTENNAS	0
H638	DO YOU WORK WITH DIPOLE ANTENNAS	1
H639	DO YOU WORK WITH SLOTTED ANTENNAS	0
H640	DO YOU WORK WITH ROTARY ANTENNAS	0
H641	DO YOU WORK WITH HERTZ ANTENNAS	0
H642	DO YOU WORK WITH MARCONI ANTENNAS	0
H643	DO YOU WORK WITH RHOMBIC ANTENNAS	0
H644	DO YOU WORK WITH SCIMITAR ANTENNAS	0
H645	DO YOU WORK WITH PARABOLIC ANTENNAS	1
H646	DO YOU WORK WITH GROUND PLANE ANTENNAS	0
H647	DO YOU PERFORM TASKS ON ROTARY ANTENNA ARRAYS	0
H648	DO YOU PERFORM TASKS ON STACKED (END FIRE) ANTENNA ARRAYS	0
H649	DO YOU PERFORM TASKS ON BROADSIDE ANTENNA ARRAYS	0
H650	DO YOU PERFORM TASKS ON CARDIOID ANTENNA ARRAYS	0
H651	DO YOU PERFORM TASKS ON COLLINEAR ANTENNA ARRAYS	0
H652	DO YOU PERFORM TASKS ON PHASE ANTENNA ARRAYS	1
H653	DO YOU PERFORM TASKS ON PLANAR ANTENNA ARRAYS	1
H654	DO YOU PERFORM TASKS ON ANTENNAS WITH VERTICAL POLARIZATION	1
H655	DO YOU PERFORM TASKS ON ANTENNAS WITH HORIZONTAL POLARIZATION	1
H656	DO YOU PERFORM TASKS ON ANTENNAS WITH CIRCULAR POLARIZATION	1
H657	DO YOU PERFORM TASKS ON ANTENNAS WITH UNIDIRECTIONAL RADIATION PATTERNS	1
H658	DO YOU PERFORM TASKS ON ANTENNAS WITH BIDIRECTIONAL RADIATION PATTERNS	0
H659	DO YOU PERFORM TASKS ON ANTENNAS WITH OMNIDIRECTIONAL RADIATION PATTERNS	0
54B.	PERFORM ALIGNMENTS	
H630	DO YOU PHYSICALLY ALIGN ANTENNAS	1
H631	DO YOU ELECTRICALLY ALIGN ANTENNAS	1
H636	DO YOU MEASURE STANDING WAVE RATIO (SWR) FOR ANTENNAS	1

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
54C.	ISOLATE FAULTY ANTENNAS	
H632	DO YOU TROUBLESHOOT LOADING OF ANTENNAS	1
H633	DO YOU TROUBLESHOOT COUPLING OF ANTENNAS	1
H635	DO YOU TROUBLESHOOT ANTENNA COMPONENTS	1
55A.	THEORY OF OPERATION	
J668	DO YOU TRACE BLOCK DIAGRAMS OF CIRCUITS CONTAINING MICROPHONES	16
J669	DO YOU TRACE SCHEMATIC DIAGRAMS OF MICROPHONE CIRCUITS	13
J672	DO YOU WORK ON CARBON MICROPHONES	15
J673	DO YOU WORK ON CAPACITOR MICROPHONES	2
J674	DO YOU WORK ON CRYSTAL MICROPHONES	1
J675	DO YOU WORK ON DYNAMIC MICROPHONES	3
J676	DO YOU WORK ON VELOCITY RIBBON MICROPHONES	1
55B.	ISOLATE FAULTY MICROPHONES	
J670	DO YOU TROUBLESHOOT TO ISOLATE A FAULTY MICROPHONE	16
55C.	TROUBLESHOOT CIRCUITS	
J671	DO YOU TROUBLESHOOT MICROPHONES	7
56A.	THEORY OF OPERATION	
J677	DO YOU TRACE BLOCK DIAGRAMS OF CIRCUITS CONTAINING SPEAKERS	26
J678	DO YOU TRACE SCHEMATIC DIAGRAMS OF SPEAKER CIRCUITS	21
56B.	ISOLATE FAULTY SPEAKERS	
J679	DO YOU TROUBLESHOOT TO ISOLATE A FAULTY SPEAKER	24
56C.	TROUBLESHOOT CIRCUITS	
J680	DO YOU TROUBLESHOOT SPEAKERS	15

TABLE B3 (CONTINUED)

AFSC 455X0A ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550A (N=149)
58A.	THEORY OF OPERATION	
J690	DO YOU TRACE BLOCK DIAGRAMS OF CIRCUITS CONTAINING DISPLAY TUBES	0
J691	DO YOU TRACE SCHEMATIC DIAGRAMS OF DISPLAY TUBES OR CIRCUITS	0
J693	DO YOU ADJUST OR CALIBRATE DISPLAY TUBES OR CIRCUITS	0
J694	DO YOU WORK ON DIRECT VIEW STORAGE TUBES (DVST)	0
J695	DO YOU WORK ON MULTIPLE MODE STORAGE TUBES (MMST)	0
J696	DO YOU WORK ON SCAN CONVERTER TUBES (SCT)	0
58B.	ISOLATE FAULTY DISPLAY TUBES	
J692	DO YOU TROUBLESHOOT TO ISOLATE A FAULTY DISPLAY TUBE	0

TABLE B4

UNSUPPORTED ABR45530A POI OBJECTIVES

		PERCENT MEMBERS PERFORMING	
		1ST JOB	1ST ENL
X2A.	GIVEN TO, AS A TEAM MEMBER OPERATIONALLY CHECK THE PAVE SPIKE SYSTEM		
K373	BENCH CHECK PAVE SPIKE SYSTEMS	0	1
K376	PERFORM BIT ON PAVE SPIKE SYSTEMS	0	1
XI1a.	GIVEN TO, AS A TEAM MEMBER DISASSEMBLE THE PAVE SPIKE POD (AN/ASQ-153)		
K371	ASSEMBLE OR DISASSEMBLE PAVE SPIKE PODS	0	1
K382	REMOVE OR REPLACE PAVE SPIKE SRUs	0	1
K383	REMOVE OR REPLACE ROLL CANS	0	1
XI1b.	GIVEN TO, AS A TEAM MEMBER REMOVE AND REPLACE LRUs		
K381	REMOVE OR REPLACE PAVE SPIKE LRUs	0	0
K382	REMOVE OR REPLACE PAVE SPIKE SRUs	0	1
XI1c.	GIVEN TO, AND SPECIALIZED TEST EQUIPMENT, AS A TEAM MEMBER, PERFORM MAINTENANCE AND ALIGNMENT		
F170	ALIGN OR ADJUST LASER CONTROL ELECTRONICS	24	15
K368	ALIGN OR ADJUST PAVE SPIKE SRUs	0	1
K369	ALIGN OR ADJUST POD INTERFACE ELECTRONIC UNITS (IEU)	0	0
K374	BORESIGHT PAVE SPIKE PODS	0	0
XI1d.	GIVEN TO, AS A TEAM MEMBER, REASSEMBLE THE AN/ASQ-153 PAVE SPIKE POD		
F234	PURGE PHOTO-SENSOR SYSTEMS USING COOLANOL	0	1
K371	ASSEMBLE OR DISASSEMBLE PAVE SPIKE PODS	0	1
K378	REMOVE OR REPLACE COOLANT HOSES	0	1
K384	REMOVE OR REPLACE SIDE PANELS	0	1
K388	VISUALLY INSPECT PHASE CHANGE MATERIAL	0	0
XI1f.	GIVEN TO AND TO EXERPT, FUNCTIONALLY CHECK THE LASER CORDER CONTROL		
K373	BENCH CHECK PAVE SPIKE SYSTEMS	0	1

TABLE B5

TASKS PERFORMED BY MORE THAN 30 PERCENT CRITERION GROUPS NOT MATCHED TO ABR45530A POI

		PERCENT MEMBERS PERFORMING	
		1ST JOB	1ST ENL
F252	REMOVE OR REPLACE CANNON PLUGS, CONNECTORS, OR PINS	83	83
F240	READ OR INTERPRET SCHEMATICS	80	81
F298	TROUBLESHOOT PHOTO-SENSOR SYSTEMS IN SHOP	80	77
F209	OPERATE AEROSPACE GROUND EQUIPMENT (AGE)	76	77
G307	CONNECT OR DISCONNECT POWER TO AIRCRAFT	76	72
F299	TROUBLESHOOT PHOTO-SENSOR SYSTEMS ON AIRCRAFT	73	67
G308	OPERATE GROUND OR EXTERNAL POWER UNITS	73	72
F196	CRIMP PINS	71	73
F205	INVENTORY FLIGHTLINE CTKs	71	73
E106	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	63	65
E115	COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	63	71
E129	LOCATE INFORMATION IN TECHNICAL ORDERS (TO)	63	72
F207	LUBRICATE MECHANICAL COMPONENTS	63	47
F212	PACK OR UNPACK PHOTO-SENSOR SYSTEM EQUIPMENT	63	66
H328	VISUALLY INSPECT PODS FOR DAMAGE	63	43
G311	POSITION AGE TO AIRCRAFT	61	59
F193	CLEAN MIRRORS OR LENS	59	64
F219	PERFORM CORROSION CONTROL ON TEST EQUIPMENT	59	64
F300	TROUBLESHOOT SUPPORT EQUIPMENT	59	55
F220	PERFORM HIGH RELIABILITY SOLDERING	56	60
G312	REMOVE OR REPLACE INFRARED POWER SUPPLIES	56	43
F162	ALIGN OR ADJUST ELECTRONIC CONTROL AMPLIFIERS (ECA)	54	42
F250	REMOVE OR REPLACE CABLE ASSEMBLIES	54	51
F254	REMOVE OR REPLACE COCKPIT CONTROL PANELS	54	54
G313	REMOVE OR REPLACE LASER POWER SUPPLIES	54	31
F225	PERFORM PMI ON TEST EQUIPMENT	51	49
F229	PERFORM SOLDERING USING OTHER THAN HIGH RELIABILITY SOLDERING	51	47
F284	REMOVE OR REPLACE SEALS	51	40
F186	BORESIGHT RECEIVER GROUP OPTICS	49	30

TABLE B6

AFSC 455X0B ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550B (N=146)
6c.	INDUCTOR CALCULATIONS	
A22	DO YOU CALCULATE VALUES OF CIRCUIT TOTAL INDUCTANCE	17
A23	DO YOU CALCULATE VALUES OF CIRCUITS OR COMPONENT INDUCTIVE REACTANCE	16
A24	DO YOU CALCULATE VALUES OF CIRCUIT VOLTAGE OR CURRENT IN CIRCUITS CONTAINING INDUCTORS	17
12a.	THEORY OF DC GENERATOR OPERATIONS	
A53	DO YOU TRACE SCHEMATICS OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING DC GENERATORS	17
A56	DO YOU PERFORM TASKS ON COMPONENT PARTS OF DC GENERATORS	9
12b.	ISOLATE FAULTY DC GENERATORS	
A54	DO YOU TROUBLESHOOT TO ISOLATE A FAULTY DC GENERATOR	15
12c.	TROUBLESHOOT DC GENERATORS	
A55	DO YOU TROUBLESHOOT DC GENERATOR COMPONENT PARTS	10
13a.	THEORY OF AC GENERATOR OPERATION	
A57	DO YOU TRACE SCHEMATICS OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING AC GENERATORS	14
A60	DO YOU PERFORM TASKS ON COMPONENT PARTS OF AC GENERATORS	7
13b.	ISOLATE FAULTY AC GENERATORS	
A58	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY AC GENERATOR	13
16a.	THEORY OF CHOPPER OPERATION	
A70	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY CHOPPER	13
A71	DO YOU MEASURE CHOPPER COIL EXCITATION FREQUENCY	8
A72	DO YOU MEASURE CHOPPER COIL VOLTAGE-CURRENT PHASE RELATIONSHIPS	9

TABLE B6 (CONTINUED)

AFSC 455X0B ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550B (N=146)
16b.	ISOLATE FAULTY CHOPPERS	
A70	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY CHOPPER	13
A71	DO YOU MEASURE CHOPPER COIL EXCITATION FREQUENCY	8
A72	DO YOU MEASURE CHOPPER COIL VOLTAGE-CURRENT PHASE RELATIONSHIPS	9
17a.	THEORY OF TRANSDUCER OPERATION	
A73	DO YOU TRACE SCHEMATICS OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING TRANSDUCERS	10
A75	DO YOU CALIBRATE OR ADJUST TRANSDUCERS	8
A76	DO YOU REPAIR, CLEAN, OR LUBRICATE TRANSDUCERS	7
20c.	BIPOLAR JUNCTION TRANSISTORS SPECIFICATIONS	
A93	DO YOU USE TRANSISTOR CHARACTERISTIC CURVES	12
A94	DO YOU USE TRANSISTOR SUBSTITUTION INFORMATION	18
21c.	INTEGRATED CIRCUIT SPECIFICATIONS	
A97	DO YOU USE IC SUBSTITUTION INFORMATION	19
36a.	THEORY OF FREQUENCY SENSITIVE FILTERS OPERATION	
E317	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING FREQUENCY SENSITIVE FILTERS	13
E320	DO YOU ALIGN OR ADJUST FREQUENCY SENSITIVE FILTERS	8
E322	DO YOU PERFORM TASKS ON LOW PASS FREQUENCY SENSITIVE FILTERS	13
E323	DO YOU PERFORM TASKS ON HIGH PASS FREQUENCY SENSITIVE FILTERS	13
E324	DO YOU PERFORM TASKS ON BAND PASS FREQUENCY SENSITIVE FILTERS	8
E325	DO YOU PERFORM TASKS ON BAND-REJECT FREQUENCY SENSITIVE FILTERS	1
E326	DO YOU PERFORM TASKS ON FERRITE BEAD FREQUENCY SENSITIVE FILTERS	3
38c.	TROUBLE SHOOT LIMITER CIRCUITS	
F378	DO YOU TROUBLESHOOT LIMITERS TO CIRCUIT LEVEL COMPONENTS	18

TABLE B6 (CONTINUED)

AFSC 455X0B ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550B (N=146)
39c.	TROUBLESHOOT CLAMPER CIRCUITS	
F380	DO YOU TROUBLESHOOT CLAMPERS TO CIRCUIT LEVEL COMPONENTS	19
41c.	TROUBLESHOOT DIGITAL LOGIC FUNCTIONS CIRCUITS	
G416	DO YOU TROUBLESHOOT DIGITAL SYSTEMS, SUBSYSTEMS, OR CIRCUIT CARDS TO CIRCUIT LEVEL COMPONENTS OR IC	18
43d.	COMPUTER FAULT ISOLATION	
G450	DO YOU TROUBLESHOOT COMPUTERS TO A MAJOR UNIT	3
G451	DO YOU TROUBLESHOOT COMPUTERS TO A SUBASSEMBLY OR CIRCUIT CARD	3
44a.	THEORY OF MICROPROCESSOR OPERATION	
G485	DO YOU TRACE BLOCK OR SCHEMATIC DIAGRAMS OF MICROPROCESSOR CONTROLLED SYSTEMS	2
44b.	ISOLATE FAULTY MICROPROCESSORS	
G486	DO YOU TROUBLESHOOT MICROPROCESSOR CONTROLLED SYSTEMS TO A SUBASSEMBLY OR CIRCUIT CARD	2
G487	DO YOU TROUBLESHOOT MICROPROCESSOR CONTROLLED SYSTEMS TO ISOLATE A FAULTY MICROPROCESSOR	1
45a(1).	COUNTERS (SYNCHRONOUS/ASYNCHRONOUS-UP/DOWN COUNTERS)	
G488	DO YOU TRACE DATA FLOW THROUGH CIRCUITS CONTAINING COUNTERS	18
G491	DO YOU PERFORM TASKS ON UP COUNTERS IN LOGIC CIRCUITS	14
G492	DO YOU PERFORM TASKS ON DOWN COUNTERS IN LOGIC CIRCUITS	14
G493	DO YOU PERFORM TASKS ON DECADE COUNTERS IN LOGIC CIRCUITS	9
G494	DO YOU PERFORM TASKS ON RING COUNTERS IN LOGIC CIRCUITS	4
G495	DO YOU PERFORM TASKS ON MODULOUS COUNTERS IN LOGIC CIRCUITS	3
G496	DO YOU PERFORM TASKS ON SYNCHRONOUS (PARALLEL) COUNTERS IN LOGIC CIRCUITS	7
G497	DO YOU PERFORM TASKS ON ASYNCHRONOUS (SERIAL) COUNTERS IN LOGIC CIRCUITS	6

TABLE B6 (CONTINUED)

AFSC 455X0B ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550B (N=146)
45a(2).	REGISTER (SHIFT AND STORAGE)	
G498	DO YOU TRACE LOGIC DIAGRAMS OF CIRCUITS CONTAINING REGISTERS	12
G501	DO YOU PERFORM TASKS ON SHIFT REGISTERS IN LOGIC CIRCUITS	9
G502	DO YOU PERFORM TASKS ON STORAGE REGISTERS IN LOGIC CIRCUITS	8
45a(3).	COMBINATION LOGIC CIRCUITS	
G503	DO YOU TRACE DATA FLOW THROUGH COMBINATIONAL LOGIC CIRCUITS	10
G506	DO YOU PERFORM TASKS ON ENCODERS	10
G507	DO YOU PERFORM TASKS ON DECODERS	8
G508	DO YOU PERFORM TASKS ON MULTIPLEXERS	8
G509	DO YOU PERFORM TASKS ON DEMULTIPLEXERS	5
G510	DO YOU PERFORM TASKS ON COMPARATORS	8
G511	DO YOU PERFORM TASKS ON PARITY GENERATORS OR CHECKERS	3
G512	DO YOU PERFORM TASKS ON CODE CONVERTERS	3
G513	DO YOU PERFORM TASKS ON ADDERS	6
G514	DO YOU PERFORM TASKS ON SUBTRACTORS	5
G515	DO YOU PERFORM TASKS ON COUNT DETECT CIRCUITS	3
45b.	ISOLATE FAULTY CIRCUITS	
G489	DO YOU TROUBLESHOOT COUNTER CIRCUITS TO ISOLATE A FAULTY COUNTER	17
G499	DO YOU TROUBLESHOOT CIRCUITS CONTAINING REGISTERS TO ISOLATE A FAULTY REGISTER	8
G504	DO YOU TROUBLESHOOT TO ISOLATE A FAULTY COMBINATIONAL LOGIC CIRCUIT	9
45c.	TROUBLESHOOT CIRCUITS	
G490	DO YOU TROUBLESHOOT COUNTERS TO CIRCUIT LEVEL COMPONENTS	12
G500	DO YOU TROUBLESHOOT REGISTERS TO CIRCUIT LEVEL COMPONENTS	7
G505	DO YOU TROUBLESHOOT COMBINATIONAL LOGIC CIRCUITS TO CIRCUIT LEVEL COMPONENTS	6

TABLE B6 (CONTINUED)

AFSC 455X0B ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS
WITH KNOWLEDGE OR PERFORMANCE CODES AND LESS THAN
20 PERCENT MEMBERS RESPONDING "YES"

		45550B (N=146)
46a.	D/A, A/D CONVERTERS THEORY OF OPERATION	
G516	DO YOU TRACE DATA FLOW THROUGH A/D CONVERTERS	11
G517	DO YOU TRACE DATA FLOW THROUGH D/A CONVERTERS	10
G520	DO THE CONVERTERS YOU PERFORM TASKS ON USE FLASH CONVERSION	2
G521	DO THE CONVERTERS YOU PERFORM TASKS ON USE SUCCESSIVE APPROXIMATION CONVERSION	4
G522	DO THE CONVERTERS YOU PERFORM TASKS ON USE RAMP CONVERSION	3
G523	DO THE CONVERTERS YOU PERFORM TASKS ON USE R2R CONVERSION	1
46b.	ISOLATE FAULTY CONVERTERS	
G518	DO YOU TROUBLESHOOT A/D CONVERTER CIRCUITS	9
G519	DO YOU TROUBLESHOOT D/A CONVERTER CIRCUITS	9
47a.	THEORY OF TRANSMISSION LINE OPERATION	
H527	DO YOU CONSTRUCT TRANSMISSION LINES	1
H528	DO YOU MATCH TRANSMISSION LINE IMPEDANCE WITH LOADS	1
H531	DO YOU PERFORM TASKS ON OPEN-WIRE TRANSMISSION LINES	1
H532	DO YOU PERFORM TASKS ON TWISTED PAIR TRANSMISSION LINES	1
H533	DO YOU PERFORM TASKS ON TWIN LEAD TRANSMISSION LINES	1
H534	DO YOU PERFORM TASKS ON FLEXIBLE COAXIAL TRANSMISSION LINES	4
H535	DO YOU PERFORM TASKS ON RIGID COAXIAL TRANSMISSION LINES	1
H536	DO YOU PERFORM TASKS ON FIBER-OPTIC TRANSMISSION LINES	0
47b.	PERFORM MEASUREMENTS ON TRANSMISSION LINES	
H524	DO YOU MEASURE ELECTRICAL LENGTH ON TRANSMISSION LINES	0
H525	DO YOU MEASURE PHYSICAL LENGTH ON TRANSMISSION LINES	3
H526	DO YOU MEASURE STANDING WAVE RATIO (SWR) ON TRANSMISSION LINES	0